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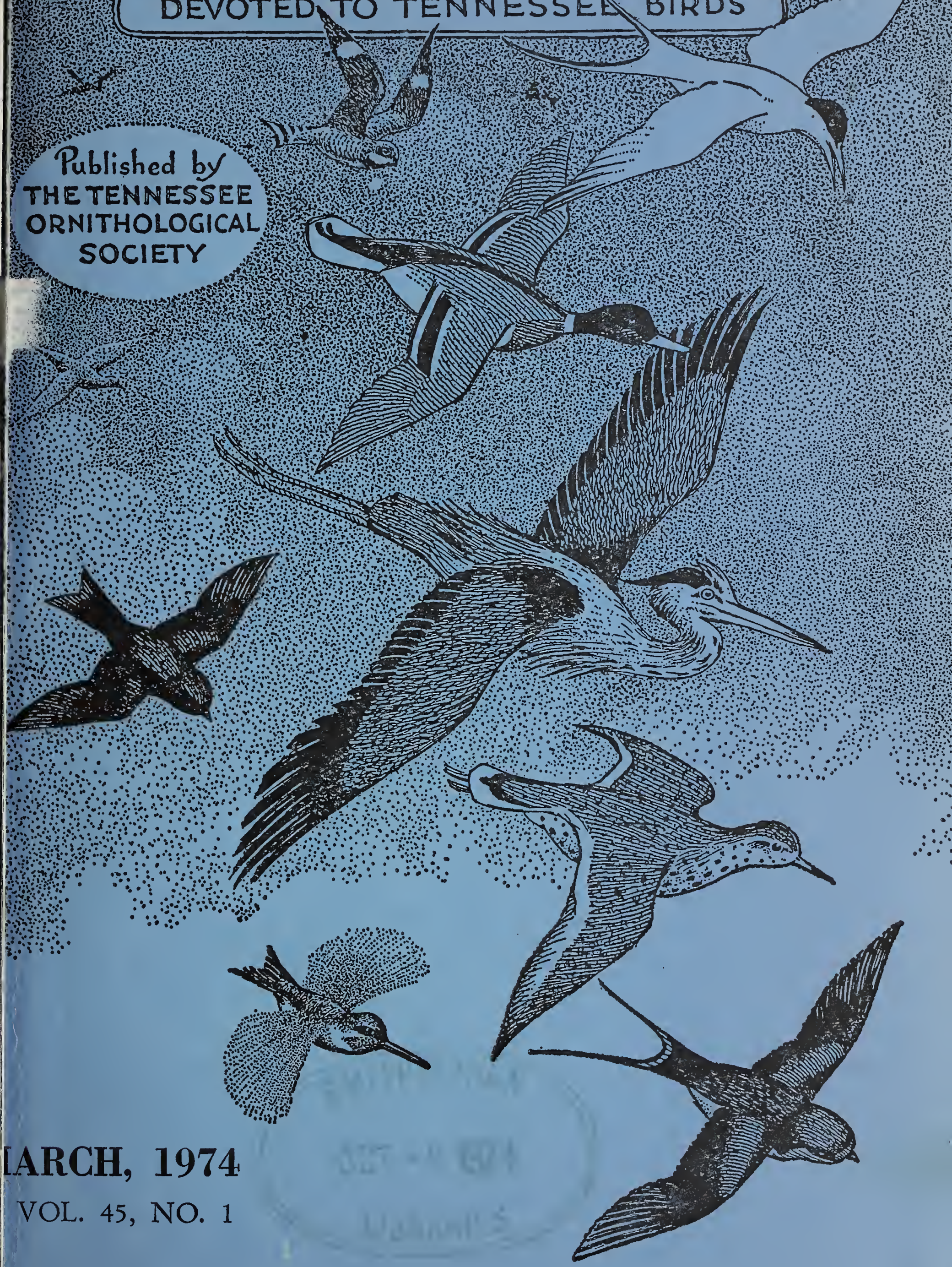

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

ARCH, 1974
VOL. 45, NO. 1

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Annual dues, $3.00; Sustaining, $5.00; Life, $100.00; Student, $1.00; Family, 4.00; Library, $3.00 (chapters may collect additional fees to cover local expenses). Back numbers may be had from Dr. James T. Tanner, Rt. 28, Box 155, Knoxville, Tenn. 37920. Correspond with the Treasurer for subscriptions, memberships, and changes of address.

Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 45 MARCH, 1974 NO. 1

THE 1972 FORAY: LAWRENCE COUNTY

BY FRED J. ALSOP, III[1] AND MORRIS WILLIAMS[2]

More than 30 T.O.S. members were hosted by the Buffalo River Chapter in Lawrence County during the second annual T.O.S. Foray, 26-29 May 1972. As in the 1971 Campbell County Foray (*The Migrant,* 42(4): 73-81), these birders made daily studies of the avifauna throughout the county recording all individual birds seen and/or heard during the period. Compilations were made each evening with the records coming from: 1) daily field lists of all species observed, 2) studies of the Foray Bird—the Blue Grosbeak, 3) roadside counts, 4) strip counts, and 5) nest location. The Foray was headquartered in David Crockett State Park.

Lawrence County is located in the southwestern part of Central Tennessee and is bordered on the south by Lauderdale County, Alabama. It is bounded by the Tennessee counties of Giles on the east, Maury and Lewis on the north, and Wayne on the west. The county occupies a total area of 405,760 acres (approximately 634 square miles). The population is 29,097 (1970 census) or an average of 46 people per square mile. Approximately 50% of the county is cultivated with cotton and corn as the major crops. Elevations of the rolling topography range from a high of 1,000 feet along the northern boundary to 540 feet in the southwest near Shoal Creek. The county is drained by the Buffalo River, Anderson Creek, Bluewater Creek, Shoal Creek, Sugar Creek, and Weakley Creek. There are many small ponds and lakes of a few acres in size in the county. Laurel Hill Lake in the northwest corner is the largest body of water in the county. It has a surface area of 327 acres.

Weather during the Foray was clear to partly overcast with daily highs in the upper 80's and low 90's, and nightly lows in the 50's and 60's ° F.

THE 1972 FORAY SPECIES LIST

The following annotated species list was edited and compiled from all the reports received from the Foray participants. With regard to the species listed, and to their numbers, the following points should be noted: 1) most of the birds are permanent and/or summer residents and, therefore, may be breeding in Lawrence County; *but* several are late transients, i.e., Rose-breasted Grosbeak, and 2) the numbers following the species name indicate the total number of observations made of that species and *should not* be considered the number of individuals of that species seen. For example, the 30 Red-tailed Hawks reported means this species was recorded on 30 different occasions, but not that 30 different Red-tails were known to be present in the county during the Foray. This is due to the wide, and sometimes overlapping coverage of the area by the participants during the four day period. Where only one bird represents its species on the list, and/or where several individuals of one species were reported by one party, the name(s) of the observer(s) appears in the list. Species not accepted, but reported, do not appear in the list which follows.

Green Heron (*Butorides virescens*)—31; Mallard (*Anas platyrhynchos*)—6, domestic or wild??; Wood Duck (*Aix sponsa*)—13; Turkey Vulture (*Cathartes aura*)—109; Black Vulture (*Coragyps atratus*)—12; Sharp-shinned Hawk (*Accipiter striatus*)—1, identified by Gloria and David Patterson; Cooper's Hawk (*A. cooperii*)—2, both identified by George Mayfield; unidentified Accipiters—1; Red-tailed Hawk (*Buteo jamaicensis*)—30; Red-shouldered Hawk (*B. lineatus*)—5; Broad-winged Hawk (*B. platypterus*)—18; unidentified Buteo-type hawks—1; American Kestrel (*Falco sparverius*)—11; Bobwhite (*Colinus virginianus*)—878; Ring-necked Pheasant (*Phasianus colchicus*)—6, stocked by Tennessee Game and Fish Commission; Turkey (*Meleagris gallopavo*)—8; American Coot (*Fulica americana*)—2; Killdeer (*Charadrius vociferus*)—78; Spotted Sandpiper (*Actitis macularia*)—2, transient; Least Sandpiper (*Calidris minutilla*)—8, transient, identified by Tom Finucane; Semipalmated Sandpiper (*Calidris pusillus*)—3, transient, identified by Fred Alsop, Morris Williams, and Chuck Nicholson; Rock Dove (*Columba livia*)—121; Mourning Dove (*Zenaida macroura*)—908; Yellow-billed Cuckoo (*Coccyzus americanus*)—218; Black-billed Cuckoo (*C. erythropthalmus*)—4; Screech Owl (*Otus asio*)—5; Great Horned Owl (*Bubo virginianus*)—5; Barred Owl (*Strix varia*)—3; Chuck-wills-widow (*Caprimulgus carolinensis*)—74; Whip-poor-will (*C. vociferus*)—99; Common Nighthawk (*Chordeiles minor*)—4; Chimney Swift (*Chaetura pelagica*)—311; Ruby-throated Hummingbird (*Archilochus colubris*)—13; Belted Kingfisher (*Megaceryle alcyon*)—65; Common Flicker (*Colaptes auratus*)—42, the low number when compared with that of the following species perhaps indicates some voice misidentifications between the two; Pileated Woodpecker (*Dryocopus pileatus*)—61; Red-bellied Woodpecker (*Centurus carolinus*)—247; Red-headed Woodpecker (*Melanerpes erythrocephalus*)—1, seen in Lawrenceburg by Martha Crawford; Hairy Woodpecker (*Dendrocopos villosus*)—10; Downy Woodpecker (*D. pubescens*)—76; Eastern Kingbird (*Tyrannus tyrannus*)—144; Great Crested Flycatcher (*Myiarchus crinitus*)—90; Eastern Phoebe (*Sayornis phoebe*)—72; Acadian Flycatcher (*Empidonax virescens*)—126; Eastern Wood Pewee (*Contopus virens*)—134; Horned Lark (*Eremophila alpestris*)—50; Tree Swallow (*Iridoprocne bicolor*)—2, transient; Rough-winged Swallow (*Stelgidopteryx ruficollis*)—54; Barn Swallow (*Hirundo rustica*)—838; Cliff Swallow (*Petrochelidon pyrrhonota*)—2, Fred Alsop and Don Simbeck, first reported nesting attempt by the species in Lawrence County, *fide* Morris Williams; Purple Martin (*Progne subis*)—122; Blue Jay (*Cyanocitta cristata*)—468; Common Crow (*Corvus brachyrhynchos*)—584; Carolina Chickadee (*Parus carolinensis*)—156; Tufted Titmouse (*P. bicolor*)—345; White-breasted Nuthatch (*Sitta carolinensis*)—5; Bewick's Wren (*Thryomanes bewickii*)—32; Carolina Wren (*T. ludovicianus*)—223; Mockingbird (*Mimus polyglottos*)—583; Gray Catbird (*Dumetella carolinensis*)—119; Brown Thrasher (*Toxostoma rufum*)—248; Robin (*Turdus migratorius*)—213; Wood Thrush (*Hylocichla mustelina*)

—178; Swainson's Thrush (*Catharus ustulata*)—1, identified by Tom and Joe Imhof; Eastern Bluebird (*Sialia sialis*)—433; Blue-gray Gnatcatcher (*Polioptila caerulea*)—177; Cedar Waxwing (*Bombycilla cedrorum*)—4, transient??; Loggerhead Shrike (*Lanius ludovicianus*)—132; Starling (*Sturnus vulgaris*)—675; White-eyed Vireo (*Vireo griseus*)—272; Yellow-throated Vireo (*V. flavifrons*)—23; Red-eyed Vireo (*V. olivaceus*)—213; Black-and-white Warbler (*Mniotilta varia*)—7; Prothonotary Warbler (*Protonotaria citrea*)—44; Worm-eating Warbler (*Helmitheros vermivorus*)—7; Blue-winged Warbler (*Vermivora pinus*)—44; Northern Parula Warbler (*Parula americana*)—27; Yellow Warbler (*Dendroica petechia*)—10; Cerulean Warbler (*D. cerulea*)—24; Yellow-throated Warbler (*D. dominica*)—44, two pairs were located within hearing distance of each other, one alone a creek in Sycamores and the other feeding fledged young in the pines on the ridge above; Pine Warbler (*D. pinus*)—3; Prairie Warbler (*D. discolor*)—158; Ovenbird (*Seiurus aurocapillus*)—10; Louisiana Waterthrush (*S. motacilla*)—97; Kentucky Warbler (*Oporornis formosus*)—104; Common Yellowthroat (*Geothlypis trichas*)—344; Yellow-breasted Chat (*Icteria virens*)—512; Hooded Warbler (*Wilsonia citrina*)—30; American Redstart (*Setophaga ruticilla*)—16; House Sparrow (*Passer domesticus*)—664; Bobolink (*Dolichonyx oryzivorus*)—15, transient; Eastern Meadowlark (*Sturnella magna*)—1021; Red-winged Blackbird (*Agelaius phoeniceus*)—600; Orchard Oriole (*Icterus spurius*)—234; Common Grackle (*Quiscalus quiscula*)—1,343; Brown-headed Cowbird (*Molothrus ater*)—410; Scarlet Tanager (*Piranga olivacea*)—36; Summer Tanager (*P. rubra*)—154; Cardinal (*Cardinalis cardinalis*)—605; Rose-breasted Grosbeak (*Pheucticus ludovicianus*)—5, transient; Blue Grosbeak (*Guiraca caerulea*)—149; Indigo Bunting (*Passerina cyanea*)—1,192; Dickcissel (*Spiza americana*)—49; American Goldfinch (*Spinus tristis*)—76; Rufous-sided Towhee (*Pipilo erythrophthalmus*)—379; Grasshopper Sparrow (*Ammodramus savannarum*)—41; Lark Sparrow (*Chondestes grammacus*)—22; Bachman's Sparrow (*Aimophila aestivalis*)—6; Chipping Sparrow (*Spizella passerina*)—139; Field Sparrow (*S. pusilla*)—648; White-crowned Sparrow (*Zonotrichia leucophrys*)—2, transient; Morris Williams and Chuck Nicholson.

The 109 species of birds reported are represented by 19,573 observations plus two unidentified hawks. The 14 most common species, reported 500 or more times, were: Common Grackle (1,343), Indigo Bunting (1,192), Eastern Meadowlark (1,021), Mourning Dove (908), Bobwhite (878), Barn Swallow (838), Starling (675), House Sparrow (664), Field Sparrow (648), Cardinal (605), Red-winged Blackbird (600), Common Crow (584), Mockingbird (583), and Yellow-breasted Chat (512). The rural mood of the area's economic base is reflected in having its most abundant birds those of old fields, cultivated fields, brushy fence rows, and farm yards.

Several interesting, if not surprising discoveries were made during the course of the Foray. The Lark Sparrow was known to nest in Lawrence County prior to the Foray (Morris Williams. 1971. *The Migrant*, 42 (2):32), but this species was found to be much more numerous and widespread in the county than formerly suspected. The large number of singing Whip-poor-wills listed and the remarkable number of Scarlet Tanagers reported (several of which were seen as well as heard) make these two species, generally thought of as being more scarce at this latitude in this end of the State, interesting problems in distribution that should have more field work carried forth on them. The fact that the White-eyed Vireo was reported more often than the Red-eyed Vireo perhaps reflects more time spent along the roadways where the former could be more easily detected by the observers than in the woodland haunts of the latter.

THE BREEDING BIRD SURVEYS

Censuses over areas of known size were conducted to learn something of the density of the breeding bird population in Lawrence County. The major method used was the roadside count. In addition, strip counts were conducted over three plots and a fourth, using an automobile, was made over three miles of unimproved roadway.

The Roadside Counts: Ten roadside counts (Table 1) were conducted over six routes during the Foray. Each count began at 05:04 (CDT) and was run over a preselected route of 24.5 miles with the observer making stops of three minute duration each 0.5 mile and recording all birds detected during that counting period for each of the 50 stops. The census locations and the names of the observers executing them were: #1—CENTER POINT/IRON CITY; this run began at Center Point and ran westward thru Busby Switch and Westpoint and then southward terminating at the outskirts of Iron City. Route #1 was censused by Fred Alsop with Don Simbeck recording. Route #1a, the same as the above, was also censused by Noreen Smith. #2—WEST-POINT/HENRYVILLE; the route ran from the northwest outskirts of Westpoint northward thru Deerfield terminating on County 6312 southwest of Henryville. Route #2 was censused by Lloyd Clayton with Curtis Kingsberry recording. #2a, the same as the above, was run by Robbie Hassler. Route #3—NEW HAVEN/SUMMERTOWN; this route began at the junction of the Laurel Hill Lake road and U.S. 64 in New Haven and ran north thru the southeast corner of Lewis County and terminated at Summertown. This route was censused by George Mayfield. Route #4—FLATWOODS/MINT SPRINGS BRANCH; this circular route in the northeast corner of the county began at the Flatwoods crossroads and went north to County 6230 east of Henryville, curving back southeast to Weber City, continuing east and then south to Mint Springs near the Giles County line. Ken Dubke censused this route with Lil Dubke recording. Route #5—BONNERTOWN/SUGAR CREEK; the route began in Bonnertown, ran east to Appleton, north to Crossroads, east toward Fall River, and then curved north and finally northwest ending near Sugar Creek. Dr. James Tanner conducted the census and David Patterson recorded. Route #6—RASCAL TOWN/ST. JOSEPH; this route began on the county line just south of Rascal Town and ran northward to County 6205, east to Ramah, south to County 6232, and west to its termination on U.S. 43 just north of St. Joseph. Runs #6 and #6a were made by Tom Finucane over this route. Census #6b, also over the same route, was made by Morris Williams with Chuck Nicholson recording. Species totals for each of the ten censuses appear in Table 1. The Least Sandpipers and the Rose-breasted Grosbeaks are birds in transient, and the two White-crowned Sparrows are also either transients or wintering birds late in departing the County. The Cedar Waxwings are also thought to have no status as breeding birds in Lawrence County. The Cliff Swallow, found nesting under a bridge over Shoal Creek

TABLE I

BIRDS REPORTED ON 10 ROADSIDE COUNTS OVER 6 ROUTES.

Route	#2	#3	#6	#6a	#1	#4	#2a	#1a	#6b	#5	TOTAL
SPECIES	NUMBER PER 50 STOP COUNT										
Green Heron	1	0	2	1	0	1	1	0	3	0	9
Mallard	6	0	0	0	0	0	0	0	0	0	6
Turkey Vulture	3	4	1	0	0	15	7	5	1	2	38
Black Vulture	1	1	0	0	0	1	0	0	0	0	3
Cooper's Hawk	1	0	0	0	0	0	0	0	0	0	1
Red-tailed Hawk	0	0	1	0	0	0	0	2	0	2	5
Red-shldr. Hawk	2	1	0	0	0	0	0	0	0	0	3
Brd.-winged Hawk	0	2	0	0	2	0	0	2	0	0	6
Sparrow Hawk	0	0	0	1	0	1	0	0	0	2	4
Bobwhite	47	25	66	64	50	31	34	78	68	49	512
Ring-nkd. Pheasant	4	0	0	0	0	0	1	0	0	0	5
Turkey	7	0	0	0	0	0	0	0	0	0	7
Killdeer	0	3	1	1	0	1	4	3	7	4	24
Least Sandpiper	0	0	8	0	0	0	0	0	0	0	8
Rock Dove	0	1	4	0	7	5	2	20	6	1	46
Mourning Dove	78	31	52	50	53	31	52	63	49	43	502
Yellow-bi. Cuckoo	11	6	2	3	20	10	15	18	16	10	111
Black-bi. Cuckoo	0	0	0	2	1	0	0	0	0	0	3
Gr. Horned Owl	0	0	0	0	0	1	2	0	0	0	3
Chk-will's-widow	0	3	5	0	0	2	7	0	2	0	19
Whip-poor-will	0	2	0	0	0	1	8	4	0	0	15
Chimney Swift	3	5	7	4	16	5	4	15	23	12	94
R-t. Hummingbird	0	0	0	0	1	0	0	0	0	0	1
Belt. Kingfisher	1	2	0	2	5	0	1	5	3	1	20
Common Flicker	3	3	0	1	2	1	0	5	3	0	18
Pileated Wpkr.	4	1	2	2	1	0	4	6	1	8	29
Red-bell. Wpkr.	6	10	12	15	24	13	2	10	23	8	123
Hairy Woodpkr.	0	0	0	1	0	3	0	0	0	0	4
Downy Woodpkr.	4	1	5	1	7	1	1	1	3	1	25
E. Kingbird	3	7	4	6	5	7	5	3	10	8	58
G. Crest. Flycthr.	8	5	3	3	4	2	2	1	3	4	35
E. Phoebe	0	1	1	0	7	3	1	2	1	4	20
Acadian Flycatchr.	4	0	2	0	3	0	1	3	1	2	16
E. Wood Pewee	11	7	2	0	9	5	10	5	2	7	58
Horned Lark	0	3	1	1	1	1	1	0	3	6	17
Rough-wi. Swallow	4	1	0	0	1	2	0	1	0	0	9
Barn Swallow	22	20	9	13	69	29	18	50	22	45	297
Cliff Swallow	0	0	0	0	1	0	0	0	0	0	1
Purple Martin	6	2	0	0	0	5	2	5	3	10	33
Blue Jay	20	7	7	4	36	17	12	21	28	35	187
Common Crow	30	27	38	25	46	28	22	51	67	40	374
Car. Chickadee	2	3	1	6	7	1	2	1	1	4	28
Tuft. Titmouse	31	12	12	10	16	3	15	20	6	8	133
Bewick's Wren	4	0	1	4	0	6	5	0	2	0	22
Carolina Wren	12	1	5	18	36	10	8	11	7	5	113
Mockingbird	9	20	20	20	27	10	24	34	32	22	218
Gray Catbird	3	2	1	3	14	3	2	2	3	4	37
Brown Thrasher	8	17	7	2	6	12	21	6	12	10	101
Am. Robin	8	10	17	6	11	9	5	3	14	13	96
Wood Thrush	12	5	1	2	14	2	2	2	3	5	48
E. Bluebird	11	26	21	13	10	7	16	18	14	30	166
B.-g. Gnatcatchr.	20	3	4	6	10	1	2	1	5	7	59
Cedar Waxwing	0	1	0	0	0	0	0	0	3	0	4
Logger. Shrike	2	4	2	1	1	11	4	2	10	9	46
Starling	24	17	11	15	82	22	46	40	20	15	292
Wh.-eyed Vireo	14	8	5	6	16	0	6	10	11	12	88
Yel.-th. Vireo	0	1	0	0	0	0	0	0	0	0	1
Red-eyed Vireo	7	3	5	7	12	1	2	6	3	4	50
B. & wh. Warbler	0	2	0	0	0	0	1	0	0	0	3
Prothon. Warbler	1	0	1	0	1	0	0	0	0	0	3
Blue-wg. Warbler	5	0	2	1	4	1	1	0	0	0	14
Yellow Warbler	0	0	0	2	1	0	1	0	0	0	4
Cerulean Warbler	1	0	1	0	0	0	0	1	0	0	3
Yel.-thd. Warbler	2	0	2	0	0	0	0	0	0	0	4
Prairie Warbler	10	4	4	5	7	2	10	4	2	6	54

TABLE I (Cont.)

Route	#2	#3	#6	#6a	#1	#4	#2a	#1a	#6b	#5	TOTAL
SPECIES	NUMBER PER 50 STOP COUNT										
Ovenbird	2	0	0	0	0	0	2	0	0	0	4
La. Waterthrush	0	1	3	0	0	0	1	2	0	0	7
Ky. Warbler	9	1	0	3	9	0	4	2	0	2	30
Com. Yellowthroat	17	13	18	11	32	14	20	17	22	28	192
Yel.-breast. Chat	36	17	25	19	37	17	15	29	37	26	258
Hooded Warbler	1	1	1	0	1	0	1	0	0	0	5
House Sparrow	2	9	17	9	28	40	22	53	16	23	209
Bobolink	0	15	0	0	0	0	0	0	0	0	15
E. Meadowlark	25	22	57	44	45	49	84	68	73	69	535
Red-wg. Bk. bird	14	20	16	16	17	37	30	48	37	24	259
Orchard Oriole	6	5	6	12	21	8	4	6	10	10	88
Common Grackle	31	31	45	39	135	44	36	30	95	180	666
Br.-hd. Cowbird	14	16	6	2	40	10	2	27	27	14	158
Scarlet Tanager	2	0	2	1	0	0	1	0	0	0	6
Summer Tanager	2	8	1	1	7	1	6	8	2	3	39
Cardinal	19	18	45	38	33	20	26	34	32	26	291
R.-bres. Grosbeak	0	0	1	0	0	0	1	0	1	0	3
Blue Grosbeak	0	5	4	4	7	5	10	0	8	6	49
Indigo Bunting	48	20	37	46	58	31	53	71	50	49	463
Dickcissel	0	0	2	3	1	8	0	0	2	1	17
Amer. Goldfinch	6	0	1	4	5	0	1	7	0	2	26
Ru.-sid. Towhee	32	15	11	6	43	15	14	13	12	20	181
Grasshopper Spar.	1	0	6	7	0	1	1	0	3	0	19
Lark Sparrow	0	0	0	0	0	1	3	0	0	0	4
Chipping Sparrow	4	3	7	7	17	4	6	1	5	8	62
Field Sparrow	22	24	20	32	42	31	25	34	53	44	327
Wh.-crowned Spar.	0	0	0	0	0	0	0	0	2	0	2

west of Chinubee, is the first known nesting record for that species in the County. Ninety-two species were recorded on the roadside counts.

Strip Census using an Automobile: George Mayfield made a strip census by driving over backroads and stopping every 0.1 mile for a total of 30 stops. As with the roadside counts above all birds seen and/or heard during each three minute stop were recorded. The count conducted in the Laurel Hill area along the Little Buffalo River began and ended in oak woods, ran mostly along the river habitats of tall timber, bluffs, and occasional abandoned fields. The results of the count with the numbers of individuals recorded in parenthesis follows: Turkey Vulture (2), Cooper's Hawk (1), Bobwhite (3), Turkey (1), Yellow-billed Cuckoo (3), Chuck-will's-widow (2), Whip-poor-will (3), Pileated Woodpecker (4), Red-bellied Woodpecker (3), Downy Woodpecker (2), Acadian Flycatcher (11), E. Wood Pewee (1), Blue Jay (6), Common Crow (10), Carolina Chickadee (6), Tufted Titmouse (11), White-breasted Nuthatch (1), Carolina Wren (5), Mockingbird (1), Blue-gray Gnatchatcher (13), White-eyed Vireo (11), Yellow-throated Vireo (2), Red-eyed Vireo (11), Prothronotary Warbler (2), Worm-eating Warbler (1), Blue-winged Warbler (9), Parula Warbler (5), Cerulean Warbler (2), Yellow-throated Warbler (1), Prairie Warbler (3), Louisiana Waterthrush (3), Kentucky Warbler (9), Common Yellowthroat (3), Yellow-breasted Chat (12), Hooded Warbler (6), American Redstart (8), Brown-headed Cowbird (8), Scarlet Tanager (1), Cardinal (15), Indigo Bunting (11), Rufous-sided Towhee (15), Chipping Sparrow (1), Field Sparrow (5).

Strip Counts: Three strip counts were conducted by pacing 100 steps through a selected habitat, stopping for three minutes and recording all the individual birds detected, and continuing this procedure in as straight a course as possible for a minimum of 20 stops or until the type of habitat being censused changed significantly, whichever came first. Approximately one acre of ground is covered between stations and thus a crude index of density is obtained by this method.

Laurel Hills Wildlife Management Area: 28 May; 05:15-08:00; wind 0-2 mph; no cloud cover; strip along Artemis Lane; J. T. Tanner, observer; 20 stops: Red-shouldered Hawk (1), Bobwhite (8), Mourning Dove (3), Yellow-billed Cuckoo (10), Whip-poor-will (1), Pileated Woodpecker (5), Red-bellied Woodpecker (10), Downy Woodpecker (1), Great Crested Flycatcher (2), Acadian Flycatcher (7), E. Wood Pewee (4), Blue Jay (5), Common Crow (11), Carolina Chickadee (3), Tufted Titmouse (23), Carolina Wren (5), Wood Thrush (1), Blue-gray Gnatcatcher (2), White-eyed Vireo (5), Yellow-throated Vireo (2), Red-eyed Vireo (17), Cerulean Warbler (2), Yellow-throated Warbler (1), Ovenbird (4), Louisiana Waterthrush (1), Kentucky Warbler (5), Common Yellowthroat (3), Yellow-breasted Chat (3), Hooded Warbler (1), American Redstart (1), Common Grackle (1), Brown-headed Cowbird (5), Summer Tanager (6), Cardinal (9), Indigo Bunting (5), American Goldfinch (3), Rufous-sided Towhee (6), Field Sparrow (6).

Hood Road Area: Ten miles west of Lawrenceburg; Habitat; about equally divided between mixed deciduous woods, weedy fields, and rolling pasture with tall grasses; 29 May; 06:10-09:00; wind 5-10 mph; cloudy; Lloyd Clayton, observer; 24 stops. Turkey Vulture (1), Bobwhite (24), Mourning Dove (3), Yellow-billed Cuckoo (6), Chimney Swift (5), Belted Kingfisher (1), Pileated Woodpecker (6), Red-bellied Woodpecker (4), Downy Woodpecker (2), Eastern Kingbird (1), Acadian Flycatcher (4), E. Wood Pewee (5), Blue Jay (17), Common Crow (17), Carolina Chickadee (1), Tufted Titmouse (13), Carolina Wren (2), Mockingbird (6), Gray Catbird (1), Brown Thrasher (7), Wood Thrush (8), White-eyed Vireo (3), Black-and-white Warbler (1), Louisiana Waterthrush (1), Kentucky Warbler (1), Common Yellowthroat (5), Yellow-breasted Chat (24), E. Meadowlark (21), Orchard Oriole (1), Common Grackle (11), Brown-headed Cowbird (3), Scarlet Tanager (4), Summer Tanager (15)?, Cardinal (10), Blue Grosbeak (5), Indigo Bunting (9), Rufous-sided Towhee (7), Grasshopper Sparrow (2), Field Sparrow (31).

Cany Branch Woodlot one mile SSW of Loretto: habitat, oak-hickory woodlot with many trees exceeding 10 inches DBH; 29 May; 07:30-09:15; wind 3-8 mph; 90% overcast; F. J. Alsop, observer; 14 stops. Broad-winged Hawk (1), Mourning Dove (2), Yellow-billed Cuckoo (1), Red-bellied Woodpecker (3), Downy Woodpecker (2), Great Crested Flycatcher (2), Acadian Flycatcher (4), E. Wood Pewee (3), Blue Jay (14), Common Crow (1), Carolina Chickadee (3), Tufted Titmouse (10), White-breasted Nuthatch (1), Carolina Wren (1), Wood Thrush (7), Blue-gray Gnatcatcher (1), Yellow-throated Vireo (1), Red-eyed Vireo (2), Louisiana Waterthrush (3), Kentucky Warbler (2), Common Grackle (2), Brown-headed Cowbird (5), Scarlet Tanager (2), Cardinal (5), Rufous-sided Towhee (2).

BREEDING BIRD RECORDS THROUGH NEST LOCATION

All the Foray participants were alert in their quests to discover and record as many nests as possible during the Foray. Nests are not always easily found, but 68 nests of 28 species were observed and nesting cards for the Cornell University nesting card program were completed for each. A summation of the breeding records thus gained are presented as follows:

NESTS FOUND DURING THE FORAY. E = *eggs*, Y = *young*. Red-tailed Hawk: 1 nest—1Y—MDW. Red-shouldered Hawk: 1 nest—2Y—MDW. Rock Dove: 2 nest—2E, 2E—DEP. Mourning Dove: 2 nest—2E—FJA, 2E—CPN. Ruby-throated Hummingbird: 1 nest—2Y—MDW. Belted Kingfisher: 1 nest—contents unknown—DWM. Downy Woodpecker: 2 nest—2Y, 1Y—FJA. Red-bellied Woodpecker: 2 nest—2Y, 1Y—FJA. Eastern Phoebe: 5 nest—4E—DWM, 4E, 4E, 4E—WLS, contents unknown—DEP. Acadian Flycatcher: 1 nest—building—RCH. Eastern Wood Pewee: 1 nest—building—DWM. Rough-winged Swallow: 1 nest—1Y—DWM. Barn Swallow: 5 nest—5Y, 3Y, 4Y, 4Y—DEP, 4E—WLS. Cliff Swallow: 1 nest—building—FJA. Bewick's Wren: 1 nest—6E—DEP. Brown Thrasher: 1 nest—3Y—DEP. Wood Thrush: 1 nest—building—DEP. Eastern Bluebird: 4 nest—4Y—RCH, 4Y—CPN, 1Y, 5E—DKS. Blue-gray Gnatcatcher: 1 nest—contents unknown—DEP. Loggerhead Shrike: 1 nest—1Y—DKS. Starling: 2 nest—1Y—FJA, 1Y—RCH. House Sparrow: 6 nest—1Y, 1Y, 1Y, 1Y, 1Y—FJA, contents unknown—LHD. Red-winged Blackbird: 16 nest—2E and 2Y, 4Y, 1E (abandoned), 4Y—FJA, 2E—MLB, 3E—DWM, 3Y, 4Y, 3Y, 3E, 4Y, 3E, 4E, 1E—CPN, 2Y and 1E, 2Y—DKS. Orchard Oriole: 2 nest—1Y—FJA, 2Y—DKS. Common Grackle: 3 nest—2Y and 1E, contents unknown, 4E—FJA. Cardinal: 1 nest—2E (abandoned)—MDW. Rufous-sided Towhee: 1 nest—4E—DEP. Field Sparrow: 2 nest—2E and 2Y—CPN, 4Y—MDW.

THE FORAY BIRD PROJECT

The Blue Grosbeak was selected as the Foray bird with the intent of recording as much information as possible as to the status of this bird in Lawrence County. The bird was found to be well represented in proper habitat throughout the County with 149 observations reported for the species. A County map was used during the Foray to plot locations of Blue Grosbeak sightings in order to attempt an estimate of the population density while avoiding duplication of the records. The bird was thus reported from 84 locations. Almost all the birds observed were males and the bulk of these were singing males. Many were first detected by their songs, but some by their conspicuous perches on fences and utility wires bordering the roadways. No nests were located.

Lee Shafer devoted some time to the study of this bird as a part of this Foray project and submitted this information: *Territory size;* 7 males observed seemed to hold an area of approximately 20 acres each. *Singing;* The males sang little, usually staying at a singing post less than 3 minutes. No females were seen to sing. *Nesting Activity;* No nests found. The one female flushed from likely nesting cover showed no excitement to a search of the area; neither did a male perched in a nearby tree. *Feeding;* One male was seen to feed on the young leaves in the top of a Sassafrass tree. A male and one juvenile spent some time scratching in a sawdust pile, but examination did not reveal what, if anything, they were feeding upon. One male spent some time feeding in the company of a Horned Lark on the ground in a cotton field, but again, no insects, seeds, etc. to indicate just what was being consumed could be found.

PARTICIPANTS

Fred J. Alsop, III (FJA)—Foray Director, Mike Bierly (MLB), Buffalo Chapter TOS, Helen Clayton, Lloyd Clayton, Martha Crawford, Ken Dubke, Lil Dubke (LHD), Tom Finucane, Katherine Goodpasture, Mrs. C. S. Harmon, David Hassler, Robbie Hassler (RCH), Tom Hull, Joe Imhof (Alabama), Tom Imhof (Alabama), Louise Jackson, Curtiss Kingsberry (Florida), Doris Kingsberry (Florida), Don Manning (DWM), Gina Manning, Becky Mayfield, Cleo Mayfield, George Mayfield, Mark Mayfield, Rad Mayfield, Chester McConnell, Chuck Nicholson (CPN), David Patterson (DEP), Gloria Patterson, Lee Shafer (WLS), Don Simbeck (DKS), Arlo Smith, Noreen Smith, James T. Tanner, Morris Williams (MDW)—Foray County Coordinator, Wiley Willis.

ACKNOWLEDGMENTS

Our gratitude is expressed to the members and friends of the Buffalo River Chapter of TOS for all the groundwork which was done long before the Foray participants arrived in Lawrence County. Roadside counts had been established, maps of the county obtained, a meeting place arranged in the newest building in David Crockett State Park, publicity had been well taken care of and the countless small things that meant so much in assuring a successful Foray.

Our thanks, too, to the many top birders from across Tennessee, the Kingsberrys of Florida, and the Imhofs of Alabama, for once again working so hard in this labor of love to assemble this ornithological information on another area of our state not frequently visited by birders. One just has to be a part of one of these TOS Forays to realize some of the full meaning of birding, and birders, in Tennessee. See *You* at the next one?

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PRESERVATION OF EARLY BIRD RECORDS

Alfred Clebsch, formerly of Clarksville, Tennessee, but now living in California, has conveyed to the Tennessee Ornithological Society some early records made in the Clarksville area. These include a list of the birds of Montgomery County made by William H. Deaderick in 1899, records of bird banding done by Mr. Clebsch and his friends from 1938 through 1941, and the minutes of the Clarksville Chapter of the T.O.S. from 1935 through 1940. The latter includes a tabular checklist of bird records for the years 1936 through 1940. The T.O.S. greatly appreciates the efforts of Mr. Clebsch in preserving these materials.

The records are now deposited in the Special Collection of the University of Tennessee Library at Knoxville. Here they are being cataloged and will be safeguarded and made available for future use. Material from other sources will be preserved in the same way to encourage the study of birds in Tennessee. Any person knowing of such materials is asked to communicate with the curator of the T.O.S., James T. Tanner, Route 28, Box 155, Knoxville, Tennessee 37920.

THE 1973 CHRISTMAS BIRD COUNTS

Morris D. Williams

Twenty-two counts across the state yielded a total of 127 species during the forty-third annual Christmas Bird Count in Tennessee. The total, although high, is less than that of the past two years.

In addition to the species recorded on the counts, two unusual species were reported during the count period: Western Grebe at Reelfoot and Black-headed Grosbeak at Murfreesboro. These birds are believed to represent the second state records of their respective species.

The number of Red-headed Woodpeckers was high; one hundred and sixty-six birds this year compared to 62 last year. Oldsquaws appeared on four counts. Tree Sparrows appeared on seven counts for a total of 133 birds compared to 4 birds last year.

Two counts, Buffalo River (Lawrence County) and Springfield, appear in *The Migrant* for the first time.

Information regarding the identification of certain unusual species is retained in the files of the editor of this section. Space limitations preclude their publication. Unfortunately, some records were unacceptable because details of the observations were not submitted.

The counts are tabulated as they occur from west to east across the state.

INFORMATION ON THE COUNTS

MEMPHIS—16 Dec.; 07:00 to 16:30; light snow to 10:30, mostly cloudy afterwards; temp. 32° to 37°; wind N, 10-20 m.p.h.; 22 observers in 8 parties; 60 party-hours (40 on foot, 20 by car); 143 party-miles (42 on foot, 101 by car).

Lula and Ben Coffey (compilers—672 N. Belvedere, Memphis 38107), Fred Dickson, Helen and Henry Dinkelspiel, Jack Embury, John L. Johnson, Lee R. Johnson, Edward M. King, Allan R. Larrabee, Robert W. McGowan, Nelle Moore, George Payne, Jr., Ella Ragland, Ernest Restivo, Richard G. Taylor, Alice Smith, Arlo I. and Noreen Smith, Martha Waldron, Wendell L. Whittemore, Rose Wooldridge.

REELFOOT—22 Dec.; 06:30 to 16:30; overcast; temp. 20° to 49°; wind NE, 0-10 m.p.h.; 35½ party-hours (13½ on foot, 20 by car, 1 by boat); 216
NE, 0-10 m.p.h.; 35 party-hours (13 on foot, 20½ by car, 1½ by boat); 216 party-miles (11 on foot, 201 by car, 11 by boat).

Cattle Egret by Hogg and Poitevint. Fish Crows by Gina Manning, identified by call. Longspurs by Coffey party.

Seen in area during week preceeding count: Western Grebe, Golden Eagle, American Woodcock, Turkey, and Vesper Sparrow.

THE 1973 CHRISTMAS SEASON BIRD COUNTS

	Memph	Reelf	Savan	Dover	Clark	Buffa	Colum	Nashv	Sprin	Hicko	Murfr	Leban	Cooke	Chatt	Hiwas	Norri	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Date of Count: (all Dec., 1973)	16	22	23	16	22	27	28	29	30	22	29	22	28	16	24	30	16	30	23	29	15	29
Species:																						
Common Loon	--	--	9	2	--	--	--	--	--	2	--	--	--	--	--	--	3	--	--	3	1	1
Horned Grebe	--	--	8	--	--	2	--	--	--	156	--	4	--	2	2	--	--	--	--	1	8	5
Pied-billed Grebe	5	3	1	1	8	--	4	8	--	19	--	--	1	6	1	1	20	--	--	24	10	3
Dbl.-cr. Cormorant	--	--	--	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--	--
Great Blue Heron	1	2	--	39	4	--	5	1	--	13	--	26	--	--	82	7	51	--	--	7	--	9
Cattle Egret	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Great Egret	--	--	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bl.-cr. Night Heron	--	--	--	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--	--
Whistling Swan	--	--	--	--	--	--	--	--	1	--	--	4	--	--	--	--	--	--	--	--	--	--
Canada Goose	--	1,900	--	4,800	6	--	2	--	--	139	--	64	--	129	265	1	67	--	--	--	--	--
Snow Goose	--	75	--	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mallard	20	63M	2	25M	12	4	66	--	--	302	--	5,414	--	8	403	1	8	--	15	535	53	29
Black Duck	--	6,000	3	3,000	4	--	16	--	--	9	--	2,500	--	15	120	--	29	--	--	506	4	1
Gadwall	--	8,500	--	250	10	--	23	2	--	2	--	500	--	1	15	--	--	--	--	4	--	--
Pintail	--	1,800	--	43	--	--	--	--	--	--	--	2	--	--	--	--	2	--	--	22	--	--
Green-winged Teal	--	400	--	2	--	--	8	--	--	7	--	750	--	--	--	34	--	--	--	--	--	--
Blue-winged Teal	--	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	42	--	--	--	--	--
Am. Wigeon	--	8,000	5	126	1	--	--	--	--	35	--	2,000	--	--	--	1	--	--	--	2	16	--
No. Shoveler	--	50	--	2	--	--	3	--	--	3	--	1	--	--	--	--	--	--	--	--	--	--
Wood Duck	12	75	--	6	2	--	1	--	--	3	--	2	--	8	--	--	1	--	1	4	8	--
Redhead	--	50	--	9	--	--	--	--	--	--	--	100	--	1	--	--	--	--	--	--	--	--
Ring-necked Duck	--	3,500	--	13	2	1	96	24	--	--	--	250	--	--	10	--	4	--	--	200	70	--
Canvasback	--	50	--	12	--	--	--	5	--	5	--	--	--	3	--	--	21	--	--	2	--	--
Scaup (sp.)	--	--	--	--	--	--	--	--	--	--	--	1	--	47	--	--	--	--	--	--	--	--
Lesser Scaup	2	200	70	50	--	--	43	155	--	24	--	--	--	--	--	--	2	--	--	--	10	--
Com. Goldeneye	6	75	6	--	1	--	--	49	--	42	--	--	--	3	--	--	2	--	--	--	--	--
Bufflehead	--	75	14	--	--	--	--	42	--	11	--	--	--	--	22	25	5	--	--	--	133	--
Oldsquaw	--	--	1	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	7	--
Ruddy Duck	--	2,000	--	--	--	3	1	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--
Hooded Merganser	8	200	--	85	--	--	--	--	--	16	--	--	--	--	6	4	11	--	--	--	--	--
Com. Merganser	--	75	1	--	--	--	--	--	--	--	--	--	--	--	10	--	1	--	--	--	--	--
Red-br. Merganser	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	5	--	--	--	--	--
Turkey Vulture	--	--	2	4	12	43	--	9	--	1	--	--	2	--	--	3	--	13	--	--	--	--
Black Vulture	--	1	1	160	7	3	125	29	--	--	--	1	--	--	--	--	--	--	--	--	--	--
Sharp-sh. Hawk	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	1	--	--	--	--	1	--
Cooper's Hawk	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	1	--	2	1	--
Red-tailed Hawk	22	19	5	5	16	18	9	14	14	10	--	6	5	21	5	2	4	9	1	1	1	2
Red-sh. Hawk	--	5	2	--	3	4	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Bald Eagle	--	66	1	1	--	--	--	--	--	--	--	--	--	--	1	3	--	--	--	--	--	1
Marsh Hawk	1	15	2	5	4	4	1	2	3	--	2	1	--	1	2	--	--	--	--	--	--	--

	Memph	Reelf	Savan	Dover	Clark	Buffa	Colum	Nashv	Sprin	Hicko	Murfr	Leban	Cooke	Chatt	Hiwas	Norri	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Osprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--
Sparrow Hawk	11	7	7	4	23	10	10	35	54	23	16	17	11	11	5	1	13	1	--	5	3	10
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7	--	8	1	1
Bobwhite	79	16	15	20	131	34	33	42	28	127	--	1	35	15	32	45	63	10	13	37	8	13
Ring-necked Phea.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
American Coot	--	3,000	97	6	--	--	550	118	--	180	8	20	--	27	5	--	382	--	--	18	2	--
Killdeer	48	23	17	22	43	74	9	64	11	27	3	14	9	49	60	21	55	--	3	36	54	1
American Woodcock	1	--	--	--	--	--	1	--	--	--	--	3	1	6	--	--	--	--	--	--	--	--
Common Snipe	32	11	8	--	19	10	4	7	17	2	--	4	--	9	37	--	15	--	--	--	8	2
Least Sandpiper	--	--	--	--	--	--	3	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--
Dunlin	--	--	--	--	--	--	--	--	--	--	--	--	--	--	153	--	--	--	--	--	--	--
Herring Gull	--	50	28	4	--	--	--	--	--	5	--	1	--	3	1	--	8	--	--	--	3	--
Ring-billed Gull	3	400	58	36	--	--	--	--	--	72	--	2	--	57	2	--	98	--	--	--	3	--
Bonaparte's Gull	--	4	--	1	--	--	--	--	--	55	--	--	--	35	--	--	36	--	--	--	7	--
Rock Dove	--	2	4	2	7	--	15	51	121	32	--	28	10	28	--	1	140	--	2	135	2	3
Mourning Dove	130	92	116	219	172	160	122	228	254	40	26	105	88	178	65	47	577	32	28	351	27	291
Barn Owl	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Screech Owl	--	1	--	1	2	1	1	6	3	3	--	6	2	--	3	--	3	--	--	--	5	--
Great Horned Owl	--	--	--	--	--	8	4	--	2	--	--	2	2	--	1	--	2	--	--	1	--	--
Barred Owl	3	4	1	--	1	--	--	1	1	--	--	1	--	1	--	--	--	--	--	--	--	--
Short-eared Owl	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	--	4	5	6	7	11	7	18	6	15	--	6	--	7	9	10	23	14	2	6	11	8
Common Flicker	140	65	32	9	34	54	13	46	33	14	9	13	--	26	4	6	21	5	3	4	10	5
Pileated Woodpecker	5	15	3	3	24	8	12	33	6	10	--	7	9	3	2	6	4	14	3	8	8	4
Red-bel. Woodpecker	56	37	19	14	79	39	27	84	48	9	4	15	6	18	9	4	13	5	9	13	1	7
Red-hd. Woodpecker	8	73	3	2	7	23	--	10	18	--	--	7	13	--	--	--	--	--	--	1	1	--
Yel.-bel. Sapsucker	27	41	5	2	10	5	5	15	15	6	6	10	--	7	--	1	8	3	--	5	2	3
Hairy Woodpecker	7	5	3	2	15	8	7	15	10	3	1	9	6	1	--	3	6	11	--	3	3	1
Downy Woodpecker	34	25	11	8	67	42	28	83	19	27	12	29	17	21	5	11	19	40	8	17	31	17
Eastern Phoebe	--	2	--	1	2	1	--	4	--	1	--	--	2	--	2	--	4	22	--	2	1	3
Horned Lark	78	377	125	--	13	48	6	29	25	54	--	20	--	2	25	--	6	--	--	--	--	--
Blue Jay	241	70	49	46	318	280	44	194	199	81	59	136	123	112	26	22	188	70	17	80	56	77
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	--
Common Crow	29	135	85	138	173	375	73	237	94	157	29	75	63	263	310	70	233	197	46	82	237	115
Fish Crow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Blk.-cap. Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	309*	--	--	--	3
Carolina Chickadee	86	87	33	5	141	111	79	222	84	94	46	113	37	88	39	60	104	--	31	100	117	99
Tufted Titmouse	41	36	29	11	89	107	69	144	66	29	16	59	48	74	23	30	46	179	23	41	91	45
White-br. Nuthatch	1	2	4	--	12	2	1	10	5	1	--	--	17	17	--	3	5	56	1	18	45	7
Red-br. Nuthatch	2	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	16	--	--	2	--
Brown Creeper	7	4	2	--	3	8	1	2	--	5	--	1	--	3	--	1	4	11	--	5	6	--
House Wren	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Winter Wren	12	7	1	1	--	3	2	5	--	3	--	4	2	1	1	1	1	14	--	7	4	2
Bewick's Wren	--	--	--	--	1	2	1	3	1	1	2	2	--	--	--	--	--	--	1	1	--	--
Carolina Wren	71	55	15	6	49	45	17	111	34	47	8	11	12	55	10	23	73	78	10	43	75	25

	Memph	Reelf	Savan	Dover	Clark	Buffa	Colum	Nashv	Sprin	Hicko	Murfr	Leban	Cooke	Chatt	Hiwas	Norris	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Mockingbird	110	26	21	5	122	62	18	145	75	89	44	75	26	85	10	30	116	20	17	32	26	62
Brown Thrasher	30	6	5	1	5	3	2	2	3	1	1	6	8	4	2	1	5	5	1	4	2	1
Robin	794	28	55	4	21	91	10	66	1	23	4	7	6	18	--	15	81	24	5	60	1	1
Hermit Thrush	13	10	6	2	3	6	3	--	--	--	--	2	--	--	--	1	1	13	--	2	1	--
Eastern Bluebird	--	2	12	10	65	84	21	37	19	25	3	18	20	29	18	35	4	21	3	42	16	6
Golden-cr. Kinglet	22	8	43	2	8	23	1	3	1	11	--	3	--	32	13	7	42	105	1	29	52	9
Ruby-cr. Kinglet	28	29	15	--	5	3	1	4	--	1	3	10	--	43	9	21	10	8	--	5	9	1
Water Pipit	--	--	45	77	--	21	--	--	--	--	--	--	--	--	6	--	--	--	--	--	--	--
Cedar Waxwing	310	10	65	--	--	64	--	19	10	--	--	--	--	--	--	--	105	--	--	15	14	--
Loggerhead Shrike	8	12	8	2	14	30	4	18	17	11	1	11	4	3	4	2	5	4	2	3	3	2
Starling	3,620	500M	141	63	15M	3,781	587	1,638	600M	10,662	778	1,161	--	1,742	140	937	1,631	141	147	2,052	3,224	4,200
Orange-cr. Warbler	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yel.-rumped Warbler	36	41	3	3	5	--	2	24	--	7	--	14	--	1	2	20	22	5	10	5	1	7
Pine Warbler	2	--	1	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	1	--	--	--
Palm Warbler	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	2	--	--	--	--	--
House Sparrow	213	323	--	12	106	32	95	160	654	112	388	128	61	194	--	56	98	40	40	79	153	150
Eastern Meadowlark	326	112	86	107	384	342	156	263	280	79	41	123	63	141	90	7	146	62	18	47	60	49
Red-wing Blackbird	25,220	750M	1,205	166	187	1,894	3,800	27	874	2	--	35	--	477	220	--	115	4	75	4	7	--
Rusty Blackbird	54	7	52	--	7	27	101	11	153	7	--	81	8	21	1	--	38	--	--	--	--	--
Brewers Blackbird	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Grackie	7,510	225M	3,150	385	3,000	10,200	13,500	14	350M	70	18	18	500	7	--	1	96	5	15	42	10	1,250
Brown-hd. Cowbird	366	100M	15	17	129	270	210	199	50M	5	--	200	122	--	500	--	47	--	--	2	--	12
Cardinal	568	177	120	214	540	288	147	623	430	374	254	709	90	128	87	100	225	243	48	118	123	179
Evening Grosbeak	--	--	--	--	3	--	--	--	--	--	3	--	26	6	1	11	1	489	--	7	33	43
Purple Finch	77	3	1	--	43	23	39	53	26	16	100	106	44	33	17	65	44	51	16	16	10	62
Pine Siskin	--	--	2	--	--	--	--	132	--	--	1	--	--	41	--	--	13	190	--	3	3	--
American Goldfinch	134	59	20	41	159	70	108	252	126	44	37	172	28	166	48	9	82	67	4	21	91	67
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	--	--	11	--
Rufous-sid. Towhee	81	5	30	20	123	109	80	125	30	49	65	54	60	69	17	30	97	33	11	25	21	18
Savannah Sparrow	160	105	2	--	--	10	3	29	3	14	--	--	--	9	44	--	3	--	6	--	--	--
Leconte's Sparrow	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--
Dark-eyed Junco	1,114	646	98	222	311	413	121	327	118	209	46	674	70	145	125	30	129	244	27	75	192	75
Tree Sparrow	--	76	--	--	24	3	--	2	6	21	--	--	--	--	--	--	--	--	--	--	--	1
Chipping Sparrow	--	--	--	--	--	1	--	2	--	--	--	--	1	--	--	--	--	--	--	--	1	3
Field Sparrow	76	102	37	2	57	387	205	327	161	149	32	358	47	8	75	96	122	107	7	88	42	65
White-cr. Sparrow	5	27	--	3	22	15	14	47	93	5	33	100	--	15	3	--	--	--	16	25	5	13
White-th. Sparrow	1,371	881	141	27	211	174	87	376	87	146	22	101	114	721	175	217	778	211	34	146	204	70
Fox Sparrow	68	14	9	5	18	2	22	6	3	5	5	25	--	12	1	--	2	3	1	1	1	5
Swamp Sparrow	221	125	21	9	26	53	44	21	8	85	--	75	--	18	85	--	10	9	4	--	1	--
Song Sparrow	267	201	73	19	78	217	105	288	100	271	22	291	6	380	100	74	269	152	22	94	123	91
Lapland Longspur	--	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
No. of Species	65	92	74	74	71	67	72	72	57	79	38	78	45	73	67	54	79	53	44	69	74	59

M = 1,000

* includes some Carolina Chickadees

Twenty-six of the sixty-six bald eagles were immatures. Thirty-five of the Snow Geese were of the blue morph.

Ben and Lula Coffey, George Hervey, Guy Hogg, John Johnson, Gerald Ledbetter, Don and Gina Manning (compilers—103 Stonewall Circle, McKenzie 38201), Jean Markham, Howard Poitevint, Bettie Sumara.

SAVANNAH—23 Dec.; all day; 100% overcast, temp. 42° to 52°; wind S, 5-15 m.p.h.; two parties; 20 party hours; 90 party-miles.

Egrets were in two flocks flying over.

Lloyd C. Clayton, David E. Patterson (compiler—Harbert Hills Academy, Savannah 38372), Michael Patterson, Morris D. Williams.

DOVER—16 Dec.; 06:30 to 17:00; light snow most of day; temp. 22° to 30°; two parties; 18 party-hours; 130 party-miles (3 on foot, 127 by car).

James and Susan Chiles, Tony Mahoney, Millie Perry, Dianne Sexton, John W. Sexton (compiler—Route 1, Dover 37058), Jack Sites, Nathan Snyder.

CLARKSVILLE—22 Dec.; 06:30 to 17:00; partly cloudy most of day, brief clearing at noon; temp. 13° to 33°; wind W, 5-15 m.p.h.; 22 observers in 5 parties; 48 party hours (25 on foot, 23 by car); 306 party-miles (33 on foot, 273 by car).

Joe Allen, David Chiles, Adney Cross, Michael Dinsmore, Mike Filson, Floyd Ford, Don and Kay Harker, Nita Heilman, Ellen Hutchison (organizer of feeder counts), Ray Kutzman, Kathy Lee, Tony Mahoney, Millie Perry, Jack Sites, Jr., David Snyder (compiler—Austin Peay St. Univ., Clarksville 37040), Juanita Snyder, Mary Ann Stephens, Joe and Carol Wallace, Peggy Wallen, Juaquin Walling, Barbara Wilbur.

Additional Feeder Observers: Bill Baldwins, Lois Bousman, Carlos Brewers, Juanita Harris, E. L. Hensons, William Lyles, Jim Nixon, Waldo Rassases, Louise Roach, Woodrow Walkers, Priscilla Weathersby.

BUFFALO RIVER—27 Dec.; 06:00 to 18:00; clear to partly cloudy a.m., cloudy p.m.; wind SW, 10-15 m.p.h.; temp. 40° to 50°. 9 observers in 4 parties; 48 party-hours (25 on foot, 23 by car); 177 party-miles (24 on foot, 153 by car). County centered at Deerfield on US Highway 64 in Western Lawrence County.

Seen in area count week but not on count day: Pied-billed Grebe, Ring-necked Pheasant.

Lloyd Clayton (compiler—Route 4, Lawrenceburg 38464), Bill Davis, Dave Ihrie, Chester McConnel, David Patterson, Michael Patterson, Don Simbeck, Morris Williams.

COLUMBIA—28 Dec.; partly cloudy; temp. 28° to 50°; wind W, 5-15 m.p.h.; 4 observers in 2 parties plus 4 feeder observers; 16½ party-hours (9 on foot, 7 by car, ½ by plane); 268 party-miles (8 on foot, 200 by car, 60 by plane).

Seen during count period but not on count day: Pintail, Turkey Vulture, Eastern Phoebe, Cedar Waxwing, Evening Grosbeak.

Barbara Finney, William Fuqua, Rachel Garrett, Daniel Gray, III, Lyle Hampton, Louise Hardison, George Mayfield, Jr. (compiler—Maury County Hospital, Columbia 38401), Rad Mayfield, III.

NASHVILLE—29 Dec.; 05:45 to 17:00; partly cloudy, intermittent rain; temp. 32° to 62°; wind WNW, 5-29 m.p.h.; 38 observers in 8 parties; 77 party-hours (28 on foot, 49 by car); 196 party-miles (27 on foot, 169 by car).

In count area count week but not seen count day: Snow Goose, Ring-necked Pheasant, White-breasted Nuthatch, Cedar Waxwing.

Frances Abernathy, Clyde and Vivian Anderson, Sue Bell, Michael Bierly, John Brevard, Ruth Castles, Annella Creech, Milbrey Dugger, Mrs. Nelson Elam, John and Evelyn Ellis, Clara Fentress, Bill and Sally Fintel, Dianne Gallimore, Katherine Goodpasture, Ben Groce, John Herbert, Louise Jackson, Barry Jones, Margaret Mann, Randy Martin, Ann Nichols, Mr. and Mrs. Oscar Patrick, Charles Percival, Mrs. W. A. Puryear, Win Shaughnessy (compiler—6413 Currywood Dr., Nashville 37205), Pat Stallings, Anna Sulser, Ann Tarbell, L. O. Trabue, Mr. and Mrs. W. J. Vaughn, Mr. and Mrs. George Woodring, Virginia Workman.

SPRINGFIELD—30 Dec.; 05:15 to 18:15; mostly cloudy; temp. 26° to 38°; wind SE, 3-10 m.p.h.; 5 parties; 45 party-hours (16 on foot, 23 by car); 6 feeder hours; 223 party-miles (14 on foot, 209 by car), center 36° 30' N; 86°52' W., .5 mile east of US 41 on Industrial Drive.

Mike Bierly, Ann Boyd, Lance Bracy, Georgia Doss, James Holt (compiler—Box 250, Springfield), Margaret Mann, Bob Ralph, Charles Ralph, Pat Stallings, Odis and Betty Swallows, Sr.

Feeder observers: Mrs. John R. Dunn, Mrs. Joe Gunn, Dr. and Mrs. Dan Holt.

HICKORY-PRIEST—22 Dec.; 05:15 to 17:15; cloudy to clear; temp. 10° to 38°; wind SSE, 4 to 13 m.p.h.; snow cover ½ in. to 1 in.; 10 observers in 5 parties; 3 feeder observers; 48 party-hours (20 on foot, 28 by car); 234 party-miles (16 on foot, 218 by car).

Vivian Anderson, Michael Bierly, Dot Crawford, Paul Crawford (compiler—Route 4, Gallatin 37066), Annella Creech, Milbrey Dugger, Bill and Sally Fintel, Katherine Goodpasture, Carol Knauth, Margaret Mann, Pat Stallings, Ann Tarbell.

MURFREESBORO—29 Dec.; 07:00 to 15:00; overcast, intermittant rain with light to heavy showers; streams swollen; winds to 30 m.p.h.; 16 observers in 8 parties; 14 feeder observers; 80 party-miles (20 on foot, 60 by car). Center Broad St. and Main, Murfreesboro.

Seen in area count week but not on count day: Black-headed Grosbeak.

Bertha Chrietzberg, Dr. Patrick Doyle, Lou Erwin, Mr. and Mrs. Monty Halcomb, Edith Hayes, Anne Hetish (compiler—1018 Lawndale, Murfreesboro

37130), Margaret Hibbett, Dr. and Mrs. Paul Hutcheson, Linda Johnson, Rebecca Jones, Mr. and Mrs. Sam Lane, Pat Martin, Mr. and Mrs. Larry McFarlin, Mr. and Mrs. Steve McKnight, Ruth McMillan, Clarice Miller, Dr. and Mrs. Eugene Odum, Elizabeth Pendleton, Alberta Spence, Mr. and Mrs. C. B. Stedman, Frances Vaughn, Mr. and Mrs. Floyd Wilson.

LEBANON—22 Dec.; 05:30 to 23:30; mostly clear; temp. 10° to 37°; wind W, 5-10 m.p.h.; snow cover 1 in. to 2 in.; 34 observers, 6 parties, 12 individuals, 22 feeder observers; 42 party-hours (17 on foot, 25 by car), 57 feeder-hours; 315 party-miles (22 on foot, 293 by car).

Carine Bain, Earlene Berry, Dr. and Mrs. Sidney Berry, Madalyn Bertoville, Sue Banton, Lucille Chambers, Mr. and Mrs. Clay Couch, Bobby Gamble, Mildred Gaston, Mrs. Henry Hall, Myrtle Hobbs, Mrs. Ernest Jackson, Glen Johnson, Marjorie Loyd, Reed McKee, Mr. and Mrs. Byran Paul, Douglas Pelren, Ray Pope, Nina Reed, Betsy Sellars, Mrs. Clyde Sellars, Mr. and Mrs. John Sellars, Rev. William Senter (compiler—313 West Hills Dr., Lebanon 37087), Mr. and Mrs. William Smith, George Suddarth, Teressa Waters, Mrs. William Welty, Mary Wharton, Dr. and Mrs. Dean Wilkinson.

COOKEVILLE—28 Dec.; 07:00 to 17:00; temp. 40° to 60°; windy.

Beulah Clark, Dr. and Mrs. J. O. Cummins, Caprice Haile, Raymond D. High, D. D. Hinds, Roy T. Hinds, Mr. and Mrs. Frazier Jaques, Amy Johnson, Elizabeth Killifer, Mr. and Mrs. T. B. Link, Dr. and Mrs. Sidney McGee, Mrs. J. T. Moore, Sr., Miser R. Richmond (compiler—519 N. Jefferson Ave., Cookeville 38501), Thelma Tinnon, F. R. Toline.

CHATTANOOGA—16 Dec.; temp. 29° to 38°; clear; wind N, 15-25 m.p.h.; 27 observers in 9 parties; 6 feeder observers; 74 party-hours (40 on foot, 34 by car); 770 party-miles (29 on foot, 741 by car).

Frank and Kay Baisden, Jim and Frances Barnwell, Gary and Christine Bayne, Wilbur K. Butts, Campbell and Edie Carden, Cecil and Jane Clark, Elizabeth Davis, Carl Drover, Ken and Lil Dubke, Edith Fenn, J. R. Freeman, Ann Gibson, Tom B. Heyes, Frank Hixon (compiler—6112-A Colony Circle, Hixon 37343), Gloria Hixon, Daniel Jacobson, Daniel Knarr, Max Ley, David Qualls, Vita Sliger, Eugene Tremmer.

HIWASSEE—24 Dec.; 07:00 to 19:00; fog in a.m., clear in p.m.; temp. 28° to 45°; wind in p.m. 15 m.p.h.; 8 observers in 3 parties; 21 party-hours (17 on foot, 4 by car); 79 party-miles (19 by foot, 60 by car).

Gary and Christine Bayne, Jon and Nancy DeVore, Kenneth H. and Lillian Dubke (compilers—Apt. 1, 720 Bacon Trail, Chattanooga 37412), Jon Gibson, Daniel Knarr.

NORRIS—30 Dec.; overcast; temp. 30° to 41°; wind 0 to 5 m.p.h.

Joan Hammer (compiler).

KNOXVILLE—16 Dec.; 06:30 to 17:00; overcast, drizzling rain to light snow; temp. 28° to 41°; wind N, 5 to 12 m.p.h.; 13 observers in 9 parties; 91 party-hours (56 on foot, 35 by car); 499 party-miles (42 on foot, 457 by car).

James M. Campbell, John Elson, J. C. Howell, Chester Massey, Terry McGown, Gary Muffly, Charles P. Nicholson, Holly Overton, Paul Pardue, Johneta and Louis Smith, James T. Tanner (compiler—Rt. 28, Box 155, Knoxville 37920).

GREAT SMOKY MOUNTAINS—30 Dec.; 06:30 to 17:30; clear to partly cloudy; temp. 31° to 60°; wind 1 to 24 m.p.h.; 34 observers in 12 parties; 5 feeder observers; 110 party-hours (48 on foot, 27 by car, 35 at feeders); 272 party-miles (54 on foot, 218 by car).

Winnifred Brown, James M. Campbell, Glenn Cardwell, Nancy Clark, Mary Francis Davidson, Don DeFoe (compiler—GSMNP Headquarters, Gatlinburg 37738), Jay DeFoe, Lori DeFoe, Shirley DeFoe, James Dingwall, Mildred Garrison, David Hassler, Robbie Hassler, Eleanor Massey, Morton Massey, Terry McGown, Cynthia Muffly, Gary Muffly, Muriel Monroe, Louise Nunnally, J. B. Owen, Paul Pardue, Pauline Ryder, Boyd Sharp, Jr., Mary Sharp, Nape Shelton, Johneta Smith, Louis Smith, Arthur Stupka, Margaret Stupka, George Wood, Hedy Wood, Bill Williams, Irene Williams, Dick Zani.

GREENEVILLE—23 Dec.; 08:00 to 17:00; overcast, snow cover 90% in a.m.; temp. 28° to 42°; wind 0-2 m.p.h.

Mr. and Mrs. Richard Nevius (compilers—Greeneville 37743), Dr. and Mrs. Richard Sievert, Dr. and Mrs. Royal Spees, Karl Spees.

KINGSPORT—29 Dec.; 07:00 to 16:30; cloudy to overcast, light rains to thunderstorms with heavy rains; temp. 30° to 47°; wind NW, 0 to 18 m.p.h.; 11 parties; 50 party-hours; 124 party-miles.

Hattie and Roy Allen, Tony Baird, Tom Bowman, Charlotte and Tom Finucane (compiler—1434 Watauga St., Kingsport 37664), Jeff Francisco, Tom Gannaway, Ed Gift, John Pierce, Mary Mayne Ramsey, Eugene Scott, Arthur Smith, Ann Switzer, Howard Young.

ELIZABETHTON—15 Dec.; 07:00 to 17:00; cloudy in a.m., heavy overcast and light showers in p.m.; temp. 30° to 39°; no wind; 13 observers in 7 parties; 59 party-hours (29 on foot, 20 by car, 10 by boat); 213 party-miles (24 on foot, 174 by car, 15 by boat).

Fred Behrend, Joy Dillenbeck, Glen D. Eller (compiler—Route 3, Grandview Terrace, Elizabethton 37643), Sally Goodin, Dr. and Mrs. Lee Herndon, Dr. and Mrs. Dick Lura, John Martin, Pete Range, Mr. and Mrs. Tommy Swindell, Dr. Gary Wallace.

BRISTOL—29 Dec.; 08:00 to 17:00; overcast, intermittant rain; temp. 33° to 48°; wind NE, 5 to 10 m.p.h.; 13 observers in 7 parties; 5 feeder observers; 299 party-miles (16 on foot, 238 by car, 45 by boat).

Judy Abbott, Rockwell Bingham (compiler—216 Melody Lane, Bristol 37620), Rosemary Bingham, Mrs. W. W. Case, Wallace Coffey, Lelia Epperson, Kenneth Hale, Joseph Jackson, David McPeak, Conrad Ottenfield, Helen Ottenfield, H. E. Reynolds, Mary Smith, Thomas C. Smith, Enno VanGelder, Roger VanGelder, Dianne Wilson, D. W. Yambert.

ROUND TABLE NOTES

THE BREEDING OF HAWAIIAN GEESE IN THE SOUTH—I have been advised by several waterfowl experts that our results in breeding Nenes (Hawaiian Goose *Branta sandvicensis*) this past season are considered to be a record, and that other aviculturists would be interested in our methods.

I consider myself to be a novice, although I have kept waterfowl of various kinds since childhood. I became interested in Nenes several years ago and began to study their history, habits, etc. While on business trips, I visited the Pohakuloa Breeding Station in Hawaii and also the Wildfowl Trust in England in order to learn more about these wonderful birds. After several years, I was able to obtain a pair of yearling birds, the male coming from one source, the female from another.

I will digress for a moment to describe the geographical area in which I live (Central Tennessee), and our physical facilities. This is an area of moderate winter climate, although we do experience a great deal of sub-freezing temperatures with several days when the thermometer goes down to zero or below. Our birds are housed in a converted poultry house, which has both indoor and outdoor pens. The indoor pen has a concrete floor covered with four inches of sand, a fibreglass pool and a gas-fired heater to maintain the temperature at fifty degrees Fahrenheit or above.

The female Nene laid for the first time in January 1971. She laid three clutches of four eggs each, all of which were infertile. Since the male was obviously sterile, I began searching for another. Through friends, I was able to get a young, agressive male which proved to be fertile. This year the female laid *four clutches,* totalling *nineteen eggs,* fourteen of which hatched!!

Now, to the details of how we care for our adult and young birds. The breeders are fed commercial breeder chow, poultry scratch, and all the cull lettuce they will eat daily. We use cedar brush in the corners of our indoor pens for nesting sites, and so far, the female has used the same location both years.

We are fortunate in having a large flock of Silkie Bantams which furnishes us with a dependable supply of broodies. We set only two eggs under each broody and, therefore, the eggs are never more than two days old before they are set. When hatched, the goslings are put in an indoor brood coop with their foster mother. A heat lamp is used for supplemental heat. When the goslings are four to six weeks old, they are moved to an outdoor pen which has a heated shelter. The goslings are fed commercial game bird starting and growing chow along with chopped lettuce. Until they are about seven days old, they are fed hard-boiled egg yolk crumbled on their dry feed. Our limited experience indicates that Nenes are not difficult to rear once they are hatched. The greatest problem is due to the cold weather we experience during the hatching season, and heated facility are a must.

Since the cessation of laying, beginning of moult, and the arrival of warm Spring weather occur almost simultaneously, we release our breeders onto the lake used by our other waterfowl where they have ample grazing and natural food during the Summer months. This gets them in top breeding condition before the cycle begins again in January.

T. W. COMER, 218-28 Second Ave., North, Nashville 37203.

SPRING MIGRATION OF BROAD-WINGED HAWKS IN CUMBERLAND COUNTY—On 13 April 1972, as we neared home following a shopping trip in Crossville, we saw several Broadwings (*Buteo platypterus*) behaving like migrants. Upon reaching home we started watching for more and were amply rewarded.

As is customary in Fall hawkwatching, we recorded observations in periods of 30 minutes each. The tally is as follows, beginning at 10:00 and ending at 14:30: 14, 26, 29, 7, 6, 44, 43, 5, 1, a total of 175. The largest group consisted of 14 birds. Three unidentified accipiters and 1 unidentified buteo were also seen.

All of the hawks were located with the naked eye and no attempt was made to search with binoculars. However, all hawks seen after 10:30 were very high. A large proportion passed through in the space between two layers of clouds. Use of binoculars for identification sometimes made other hawks visible.

Following is the usual data supplied in connection with hawkwatching: 1830 feet elevation; temperature, 70-75 deg.; partly cloudy, becoming overcast about 2 p.m.; wind out of the SW, 5-12 mph.

Mr. and Mrs. E. M. West, Rt. 1, Box 445C, Crossville 38555.

FIRST NASHVILLE RUDDY TURNSTONE—While searching for shorebirds at Buena Vista Bottoms, Nashville, on 12 May 1972 one Ruddy Turnstone (*Arenaria interpres*) was found at 19:00 CDT by Mike Bierly, John Riggins and Harry Monk. The bird was feeding along the pebbly shoreline of a large pond about 100 feet across from our position. Viewed with various power binoculars and a Bausch and Lomb 15-60X scope, the bird was about the size of a nearby Killdeer (*Charadrius vociferus*) but shorter legged; had a thin, short upturned bill; black on throat and breast with two black swirls, one going to the side of the head and one joining the red back at the shoulders; white on the forehead, the upper most part of the throat and between the black projections; gray circle on back of head; reddish back with black splotches; and dull orange legs.

After five minutes it flew across the pond toward us and veered over a rise behind our position and out of sight. However the bird was seen again on the following two days, 13, 14 May, but was not present on the 15th or thereafter. Confusion with other species in this plumage was unlikely. A total of seven people observed the bird.

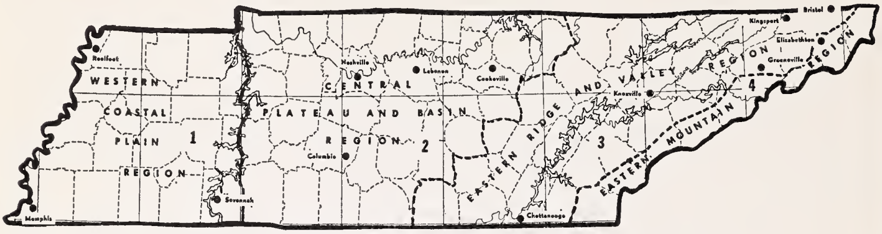
The weather at the time was overcast with threatening rain and a temperature of 73° F. A frontal system was approaching from the northwest. All three initial observers were familiar with the species, especially on the coast.

This is the eleventh known state record and third spring observation as reported in *The Migrant*. There previously have been two sightings in the Western Coastal Plain, one in the Central Basin and Highland Rim, six in the Eastern Ridge and Valley, and one in the Eastern Mountain Regions.

Michael Lee Bierly, 3826 Bedford Avenue, Nashville 37215, John N. Riggins, 5615 Brookwood Place, Nashville 37205, Harry C. Monk, Apartment 5, 2013 Capers Avenue, Nashville 37212.

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
Columbia
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

WINTER SEASON: 1 November - 15 March

The season across the state was mild and wet. Perhaps most noteworthy are the numerous records of large numbers of cormorants, loons, grebes, coots, and other waterfowl observed in the following reports. Short-eared Owls were recorded in all but the Eastern Mountain Region. There were widely scattered observations of Northern finches, but not in great numbers. Red Crossbills were found in the Central Plateau and Basin and the Eastern Ridge and Valley Regions. House Finches were present for the third consecutive winter in East Tennessee. Western visitors included a Western Grebe, Franklin's Gulls, and a Black-headed Grosbeak in the Plateau and Basin Region, and a Black-headed Grosbeak in Knoxville. Other unusual observations include those of Glossy Ibis and Lapland Longspurs in the Plateau and Basin, and a Snow Bunting in the Eastern Mountain Region.

There are many reports of late lingering shorebirds and several species of warblers, as well as a very late Broad-winged Hawk (the last in the Chattanooga area).

Many Tennessee birders were active in the field as the numerous records which follow indicate, but many additional society members surely saw many things not reported. Do your part to provide "THE SEASON" with the most complete picture of Tennessee's changing avifauna by submitting *YOUR* records to your regional compiler at the end of every month. Don't wait for him to contact you—we of *The Migrant* enthusiastically solicit the information on Tennessee birds you gather during your birding activities. Won't you help???—Good Birding!

WESTERN COASTAL PLAIN REGION—*Merganser-Sparrow:* Common Merganser: 8 Jan. (*27*) DR (JL). Red-breasted Merganser: 18 Mar. (*62*) DR (JL). Short-eared Owl: 5 Jan. (1) Shelby County Penal Farm (Lynn Agee, photographed). Whip-poor-will: *9 AND 10 MAR.* (1, singing) Harbert Hills Academy (Mike Patterson). Cliff Swallow: *6 MAR.* (1) DR (JL). Fish Crow: 21 Jan. (1) H (JL). *PALM WARBLER:* 8 Jan. (1) DR (JL, photograph at 6 feet). Tree Sparrow: 3 dates in Jan. (6) H (JL), (*15*) DR (JL), 24 Feb. (1) Horseshoe Lake, Crittenden County, Arkansas (Lula Coffey).

Locations: DR—Duck River Refuge, H—Hatchie Refuge.
Observer: JL—Jerald Ledbetter.
David E. Patterson, Harbert Hills Academy, Savannah 38372.

CENTRAL PLATEAU AND BASIN REGION—*Loon-Duck:* Common Loon: 3 Nov. (465) OHL (MLB, MPS); on 4 Nov. most of the birds had departed. Horned Grebe: 4 Nov. (150) OHL (DC, PC); 18 Nov. (205) WR (*fide* KD); 22 Dec. (150) PPL (BF, SF); *WESTERN GREBE:* 18 Nov. through 10 Feb. (1, first verified state record) WR (KD, *et al*). Pied-billed Grebe: 3 Nov. (48) OHL (MLB, MPS). Double-crested Cormorant: last 17 Jan. (2) OHL (BF, SF). Black-crowned Night Heron: 1 Dec. through period (1-4, adult and 3 imm.) OHL (NTOS). American Bittern: 11-13 Mar. (1) LC (LWC). *GLOSSY IBIS:* 6, Nov. (1) WR (KD). Whistling Swan: 9 Nov. (3) GSP (PC); 14 Nov.-8 Jan. (1) Springfield (JGH, *et al*); 19 Jan.-15 Mar. (1) Columbia area (Columbia TOS); 15 Dec. through period (up to 5) OHL (NTOS). Canada Goose: up to 125 resident birds in NA during period (NTOS); migrating flocks were numerous during the last half of Jan. Flocks of 100 or more were seen in Lawrence Co. (LWC), and in the Nashville area (NTOS). Snow Goose: 16 Jan. (1 plus 8 blue morphs) OHL (Willie W. Taylor); 26 Jan. (3 plus 13 blue morphs) Columbia area (Dan Gray). Black Duck: 20 Jan. (1500) OHL (MLB). Pintail: first 17 Nov. (20) OHL (MLB). American Wigeon: 8 Dec. (200) OHL (MLB, Harry Monk, JGH). Canvasback: 25 Dec.-31 Jan. (up to 15) RL (NTOS). Common Goldeneye: 10 Nov. (1, early) RL (MLB). Oldsquaw: 10 Nov. (1) GSP (DC, PC); 4-17 Jan. (2) RL (NTOS). *SURF SCOTER:* 6-15 Feb. (1, imm. male) RL (MLB, NTOS).

Hawks-Owl: Sharp-shinned Hawk: 4 Nov. (1) 2 Js (JR). Cooper's Hawk: 11 Nov. (2) OHL (DC, PC); 17 Nov. (1) OHL (MLB). Golden Eagle: 1 Nov. (1 killed near Gladeville); 17 Nov. (1, imm.) South Harpeth Valley (KAG, MPS, MLM). Bald Eagle: 28 Dec. (1, imm.) PPL (BF, SF); 27 Jan. (1, sd) WR (GB, *fide* KD). Sandhill Crane: 9 Dec. (1) WR (GB, *fide* KD). American Coot: 3, 4 Nov. (1200) OHL (DC, PC, MPS, MLB); 6 Nov. (9000) WR (*fide,* KD). Killdeer: 9 Nov. (100) G (DC, PC). *SOLITARY SANDPIPER:* 3 Nov.-8 Jan. (1) BV (MLB): 10 Mar. (1) BV (MLB). Pectoral Sandpiper: 4-21 Nov. (1-5) G (DC, PC). *WESTERN SANDPIPER:* 25 Nov. (1) BV (MLB). Herring Gull: 3 Jan. (1) Laurel Hill Lake, LC (LWC), first county record. *FRANKLIN'S GULL:* 17 Nov. (18, imm.) WR (Lee Shafer family). Bonaparte's Gull: 2 Dec. (180) PPL (BF, SF). Yellow-billed Cuckoo: 25 Nov. (1, late) OHL (BF, SF). *SHORT-EARED OWL:* 18 Nov. through period (up to 5) Smyrna (TOS); 23-27 Dec. (1-2) G (DC, PC), one killed on 25 Dec.

Hummingbird-Longspur: Ruby-throated Hummingbird: 24 Nov. (1, Late) NA (Ed Schreiber). Horned Lark: 6 Jan. (200) OHL (NTOS). Purple Martin: 5 Mar. (2) LC (Bessie and Emery Crowder). Long-billed Marsh Wren: 3 Nov. (1) BV (MLB). Short-billed Marsh Wren: 3 Nov. (1) BV (MLB). *BLACK-AND-WHITE WARBLER:* 15 Dec. (1) NA (Charles Percival). Tennessee Warbler: 3, 4 Nov. (1) OHL (BF, SF): 4 Nov. (1) BS (KAG). Orange-crowned Warbler: 10 Nov. (1) 2 Js (JR, HR). Nashville Warbler: 4 Nov. (1) 2 Js (JR, HR). Pine Warbler: 2 Mar. (7; 5 males and 2 females) Natchez Trace Parkway (MLB, MLM, MPS); 3 Mar. (17; 16 males and 1 female) Catoosa Wildlife Manag. Area (Charles Nicholson, MDW). *LOUISIANA WATERTHRUSH:* 10 Mar. (1) BS (KAG), very early. Common Yellowthroat: 3 Nov. (1) BV (MLB). Yellow-breasted Chat: 4 Nov. (1)

2 Js (JR, HR). Rose-breasted Grosbeak: 2-6 Nov. (1) NA (KAG). *BLACK-HEADED GROSBEAK:* during Jan. (1) Murfreesboro (TOS). Indigo Bunting: 4 Nov. (4) BS (KAG); 4 Nov. (4) 2 Js (JR, HR). Dickcissel: 24 Jan. (1) Hendersonville (Mrs. Lloyd Richmond). *EVENING GROBBEAK:* 27-28 Nov. (6) Loretto, LC (Henry and Mary Riddle); 9-13 Jan. (2) LC (LWC). Purple Finch: 15 Feb. (200, max.) LC (LWC); many reports after 1 Jan. Pine Siskin: many reports, Ann Tarbell banded over 500 in Nashville. *RED CROSSBILL:* 3 Nov. (30), 1 Dec. (20), all BS (KAG, Mel Garland). Tree Sparrow: several NA records, 22 Dec.-13 Jan., largest number 4-5 Jan. (30) Fairview (Pauline Miller); 30 Dec. (8) LC (MDW). *LAPLAND LONGSPUR:* 6 Jan. (11), 7 Jan. (1), all OHL (NTOS).

Locations: BS—Basin Springs, BV—Buena Vista, G—Gallatin, GSP—Gallatin Steam Plant, LC—Lawrence County, NA—Nashville Area, OHL—Old Hickory Lake, PPL—Percy Priest Lake, RL—Radnor Lake, 2 Js—Two Jays Sanctuary, WR—Woods Reservoir.

Observers: GB—Garry Bayne, MLB—Mike Bierly, LWC—Lloyd Clayton, DC—Dot Crawford, PC—Paul Crawford, KD—Ken Dubke, BF—Bill Fintel, SF—Sally Fintel, KAG—Katherine Goodpasture, JGH—James Holt, MLM—Margaret Mann, HR—Heather Riggins, JR—John Riggins, MPS—Pat Stallings, TOS—members Tenn. Ornith. Soc., NTOS—members Nashville TOS, MDW—Morris Williams.

MORRIS D. WILLIAMS, Five Points, Tennessee 38457.

The following corrections should be made concerning the "Central Plateau and Basin Region" in "The Season" of *The Migrant,* December 1973, Volume 44, Number 4.

Virginia Rail: 7 and 9 Sept. (1, X) WSM (KAG), should read, 7 and 13 Sept. . . .

Eastern Kingbird: 30 Aug. (40, flock) SHV (KAG, Harry C. Monk), should read, 7 Sept. . . .

Least Flycatcher: . . . ; 15 Sept. (1-6) BS (KAG), should read, 15 Sept. (1-b) . . .

Olive-sided Flycatcher: . . . ; 8-9 Sept. (1-b) BS (KAG); . . . , should read, 2-9 Sept. . . .

On page 100, the fourth line from the bottom should be the third line and the third line should be the fourth.

EASTERN RIDGE AND VALLEY REGION—This past winter was mild with very heavy rainfall. No heavy accumulations of snow occurred. Rains were heavy enough to cause some local flooding and TVA filled some lakes to full pool during some of the period.

Gulls were in low numbers during the period. Evening Grosbeaks were widely distributed throughout the area. Purple Finches were present in low numbers through the period and Pine Siskins were not reported until March when they became fairly common. Red Crossbills were distributed throughout the area. House Finches were reported for the third year, this time at a feeder in Maryville. A Black-headed Grosbeak visited a Knoxville feeder in January.

Other unusual birds reported were a Whistling Swan in December at Cove Lake, a late Broad-winged Hawk and a Harlan's (Red-tailed) Hawk in the Chattanooga area, a Golden Eagle at Hiwassee River Area, and the first Knoxville record in more than forty years of a Short-eared Owl.

Loon-Bittern: Common Loon: first 4 Nov. (15, 1 calling) BL (H. W. Nunley); 2-4 throughout season BL, 1-5 regular after 11 Nov. Ch L (KLD), 25 Feb. (1) NL (DJ). Horned Grebe: first 10 Nov. (6) BL (JD, MD, SG), 11 Nov. (1) Ch L (KLD). *DOUBLE-CRESTED CORMORANT:* 9 Nov. (3) HRA (WiC); 11 Nov. (11), 14 Nov. (5) HRA (KLD); 22 Nov. (3) FLL (Andy Morton, CN); 30 Nov. (7) FLL (GM). Great Blue Heron: 16 Nov. (85) HRA (KLD); 18 Feb. (30) PHL (JD, MD, SG). Great Egret: 5 Nov. (1) HRA (KLD). Black-crowned Night Heron: 16 Nov. (1) HRA (KLD). *CATTLE EGRET:* 8 Mar. (1, photographed) CL (GM). American Bittern: 3 Mar. (1) AM (KLD, DJ).

Swan-Merganser: WHISTLING SWAN: 12 Dec. (1, photographed) CL (GM). Canada Goose: 27 Nov. (300) CL (JMC, JCH). Snow Goose: 14-15 Jan. (1) CL (GM, CM, Paul Pardue); blue morphs, 18 Nov. (1), 27 Jan. (1) CL (JMC, JCH). Mallard: max 18 Dec. (2500) HRA (KLD). Black Duck: max 18 Dec. (2500) HRA (KLD). Green-winged Teal: 11 Nov. (20), 18 Nov. (10) Cl (JMC, JCH), 25 Feb. (2) NR (GW). Northern Shoveler: 18 Dec. (5) Ch L (KLD); 18 Feb. (7) PHL (MD, SG); 7 Mar. (1) NL (FH). Canvasback: 18 Dec. (2); 21 Jan. (1) Ch L (KLD). Scaup: all wintering scaup in Chattanooga area appear to be Greater Scaup, max 4 Mar. (450) Ch L (KLD). Common Goldeneye: max 30 Dec. (30) Ch L (LD, FH). Buffelhead: max 21 Jan. (54) HRA (KLD). *OLDSQUAW:* 30 Dec. (6) Ch L (LD, FH); 5 Jan. (1) CL (Don Hammer); 16 Dec.-9 Jan. (1) WW (DJ *et al*). *SURF SCOTER:* 2 Nov. (1 female) Laurel Lake (GM, CM); 4 Nov. (1) Laurel Lake (MDW). Common Merganser: 14 Nov. (1) HRA (KLD); 30 Nov. (2) BL (MC, SG, EO); 16 Dec. (1) NL (LS). Red-breasted Merganser: 18 Nov. (6) C L (TOS); 1 Mar. (2) BL (MD, SG), eight records; 1-12 at Ch L (KLD, CH, FH).

Vulture-Hawk: Turkey Vulture: 12 Feb. (125 at roost) LHS (KLD). Black Vulture: 1 Nov. (2) WCo (MD); 12 Feb. (75 at roost) LHS (KLD). Sharp-shinned Hawk: 10 Nov. (1) La (DyL); 18 Nov. (1) CL (TOS), 19 Feb. (1, found dead) Eliz (GW); 22 Feb. (1) K (CN, MDW); 1 Mar. (1) BL (MD, SG); 5 records in Chatt. area (KLD, FH). Cooper's Hawk: 18 Nov. (1) La (DyL); 19 Feb. (1) Eliz (GW); 6 records in Chatt. area (KLD, FH). Red-shouldered Hawk: 1-2 regular Chatt. area (KLD); becoming more uncommon in Eliz area (GE); 27 Feb. (1) La (MD, SG). *BROAD-WINGED HAWK:* 23 Nov. (1) WW (DJ). Harlan's (Red-tailed) Hawk: 20 Feb. (1, well marked individual, observed both perched and in flight) Battle Creek (Gary, Christine, Daniel Knorr). Golden Eagle: 13 Dec. (1) HRA (WiC); 18 Dec. (1 imm) HRA (KLD). Bald Eagle: 1-2 occasional HRA (KLD, WiC); 28 Nov. (1) NL (LS); 25 Feb. (1) NL (DJ); 1-3 occasional in early March at Norris (Mrs. Earl Olson). Marsh Hawk: 3 records from Chatt area (KLD); 11 Nov. (1) CC (JMC, JCH).

Crane-Gull: Sandhill Crane: 7 Nov. (25) HRA (WiC); 17 Nov. (225) HRA (Arnold Aslinger); 11 Dec. (100), 2 Mar. (25) HRA (WiC). *VIR-*

GINIA RAIL: 3 Feb. (4) AIM (CN, MDW). *SORA:* 3 Feb. (2) AIM (CN, MDW). Killdeer: max 11 Nov. (185) SB and HRA (KLD, FH, DJ, CN, MDW). American Golden Plover: 11 Nov. (3) HRA (KLD, FH, DJ, CN, MDW). American Woodcock: 3 Dec. (2, singing) AM (KLD); late Jan. thru period (1-5 singing) KC (MDW). Common Snipe: regular thru period, all areas, max 16 Nov. (128) SB and HRA (KLD). *SPOTTED SANDPIPER:* late—3 Nov. (1) AS (GE, DL). Lesser Yellowlegs: 5 Nov. (2), 11 Nov. and 14 Nov. (1) SB and HRA (KLD). Least Sandpiper: 6-37 thru mid-Feb., HRA, SB (KLD). Dunlin: wintering numbers at HRA lower than usual, high of 200 on 16 Nov., HRA (KLD); 10 Nov. (2) AS (JD, MD, SG). Herring Gull: first report 10 Nov. (2) BL (JD, MD, SG), very few other reports. Ring-billed Gull: 3 Nov. (8) AS (GE, GW), numbers low in Knox and Chatt. areas. Bonaparte's Gull: max 18 Dec. (103) ChL (KLD); 10 Mar. (11) NL (DJ).

Dove-Blackbird: Mourning Dove: cooing in late Jan., K (CN); 28 Feb. (2 fledglings) K (CN). Barn Owl: one sporadic at AM (KLD); 3 to 5 active roosts at Johnson City area thru period (PR); 12 Jan. (1 dead) Chatt. (DJ), 19 Dec. one dead, Kingsport, Fred J. Alsop. *SHORT-EARED OWL:* 1 Mar. (1) K (MDW), and 3 Mar. (1) K (CN), both at Knox Island Airport. First Knox Co. record since 1933 (second county record). Barn Swallow: 11 Mar. (2) La (DL, JL). Purple Martin: first 24 Feb. (1) KC (Ned Currance, *fide* JBO). Red-breasted Nuthatch: very few reports, most from north part of area. Winter Wren: 17 Nov. (1, singing) PHL (GE, LRH, GW); 21 Jan. (1, singing) MP (KLD). Gray Catbird: 20 Nov. (1) HRA (KLD). Water Pipit: 1-30 sporadic at SB and HRA (KLD). Pine Warbler: 15 Jan. (1) Col (RW), 21 Jan. (1, singing) HRA (KLD). *PALM WARBLER:* 1 Dec. (1) HRA (FH), 15 Jan. (1) Col (RW). Rusty Blackbird: 18 Nov. (12) CC (JMC, JCH); 24 Nov. (2) Eliz (LRH, GW).

Grosbeak-Sparrow: BLACK-HEADED GROSBEAK: 11 Jan.-15 Jan. (1 imm. male) K (J. W. Morton, JBO). Evening Grosbeak: first, 3 Nov. (15) Ringold, Ga. (Jan Hawthorne); few scattered reports Chatt. and Knox areas (KLD, RW, JBO); 2 Dec. (6) JC (JW): few reports in Eliz. area. *HOUSE FINCH:* regular from 13 Nov. thru Jan. (small flock) Maryville (C. McNiell, *fide* JBO). Purple Finch: present in low numbers throughout area. Pine Siskin: first 14 Nov. (8) JC (Virginia Curtiss, MD, SG, EO); first Chatt. area 3 Mar. (1) Col (CH). *RED CROSSBILL:* 5 Nov. (1) WW (DJ); 18 Nov. (10) CL (TOS): 6 Jan. (2) Ch L (CH); 12 Jan. (9) K (MDW); 12 Jan. (15) K (John Elson); 26 Jan. (1) Chatt (CH); 27 Jan. (11) CC (JMC, JCH); 14 Feb. (26) KC (Kyle Turner, *fide* JBO). Vesper Sparrow: 13 Nov. (2) NL (DJ); 8 Feb. (1) RS (RW). Chipping Sparrow: 5 Nov. (1) and 12 Feb. (2) WW (DJ), 22 Jan. (1, singing) Col (LS).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Spring; BL—Boone Lake; CC—Campbell County; Chatt.—Chattanooga; Col—Collegedale; CL—Cove Lake; Eliz—Elizabethton; FLL—Fort Loudon Lake; HRA—Hiwassee River Area; JC—Johnson City; K—Knoxville; KC—Knox County; La—Lamar; MP—Morris Pond, Ga.; NR—Nolichucky River; NL—Nickajack Lake; PHL—Patrick Henry Lake; RS—Rock Springs, Ga.; SB—Savannah Bay; WCo—Washington County; WW—Wildwood, Ga.

Observers: JMC—James M. Campbell, WiC—Wilford Caraway, JD—Joy Dillenbeck, MD—Martha Dillenbeck, KLD—Ken and Lil Dubke, GE—Glen Eller, SG—Sally Goodin, CH—Chris Hanley, LRH—Lee R. Herndon, DJ—Daniel Jacobson, DyL—Danny Leach, DL—Dick Lura, JL—Joyce Lura, GM—Gary Muffley, CM—Cynthia Muffley, CN—Chuck Nicholson, EO—Elizabeth Osborne, JBO—J. B. Owens, PR—Pete Range, LS—Lee Shafer, TOS—Tenn. Ornith. Soc., GW—Gary Wallace, MDW—Morris D. Williams, RW—Roder Woodruff.

Charles P. Nicholson, 6806 Haverhill Dr., Knoxville 37919.

EASTERN MOUNTAIN REGION—The weather for our area could be summarized as mild temperatures with very wet conditions. The month of November had the third highest rainfall on record with 7.83 inches being recorded with 3.62 being the average for the month. Likewise December continued very wet with 7.91 inches being recorded (3.35 average). The overall year of 1973 had 12.29 inches more rain than the average with the majority of this coming during the last quarter. January and February had milder than normal temperatures and average rainfall. Already through the 15th of March we have recorded 4.58 inches of rain and the average for the month is only 2.86 inches.

The first real cold spell came during the second week of December, while on 16 Dec. we had our biggest snowfall for the low elevations in two years when 4½ to 5 inches fell over-night.

We had several encouraging reports of "birds of prey," with both eagles being sighted and more reports of accipiters than we have had in the past two years. The "northern" species were greatly reduced in numbers this year and had seemingly less wide-spread movement. The few early returning migrants are probably due to the very mild temperatures. One noteworthy item is that thru the 15th of March we had no reports of Purple Martins.

Loon-Merganser: Common Loon: 6 Nov. (1) WilL (GE); 11 Nov. (3) Wat. L (GW). Horned Grebe: 2 Jan. (19) RC (GE, HF); 9 Mar. (2) Wat. L (GW). Great Blue Heron: 2 Feb. (2) RC (GE, HF); 9 Mar. (1) RC (LRH, GW, GE). Black Duck: 5 Jan. thru 23 Feb. (2-6) Wil. L (GW *et al*). Gadwall: 29 Jan. thru 9 Mar. (1-3) Wil. L (HF *et al*). Pintail: 5 Jan. thru 26 Feb. (1-4) Wil. L (GE *et al*). Green-winged Teal: 5 Jan. thru 2 Mar. (1) Wil. L (GE, HF *et al*). Redhead: 16 Nov. (2) Wil.L (SG, MD, JW); 2 Mar. (21) Wil. L (GE, HF, GW, LRH). Greater Scaup 5 Jan. thru 2 Feb. (1-3) Wil. L (GE, HF *et al*). Common Goldeneye: 2 Feb. (15) RC (GE, HF); 23 Feb. (1) Wat. R (HF); 8 Mar. (1) Wil. L (GW). *OLD SQUAW:* 15 Dec. (7) Wat. L (PR); 10 Feb. (1) Wat. R (HF). Hooded Merganser: 4 Nov. (4) Wil. L (DJL); 20 Jan. (2) Ripshin Lake (GE, HF). Red-breasted Merganser: 2 Feb. (2) RC (GE, HF); 9 Mar. (3) RC (GW, GE, LRH).

Hawks-Raven: Sharp-shinned Hawk: 13 Nov. (2) RM (TMS); 9 Dec. (2) Wat. L (GW); 28 Jan. (1) SV (GE); 24 Feb. (1) HS (GW). Cooper's Hawk: 18 Nov. (1) RM (SG, MD, JW, TMS); 1 Dec. (2) Iron Mtn. (SG); 26 Jan. (1) Wat. R (GW). Red-shouldered Hawk: 27 Jan. (1) HS (HF). *GOLDEN EAGLE:* 16 Nov. (1) SV (GW); 21 Nov. (2) Unicoi Mtn. (PR). *BALD EAGLE:* 29 Dec. (1) South Holston Lake (BY). Wild Turkey: 16

Nov. (78) Cades Cove (J. R. Buchanan *fide* DD). American Woodcock: 23 Nov. (1) late Wat. R (GW); 17 Feb. (2) performing HS (GE). Bonapart's Gull: 15 Dec. (7) Wat. L (PR). Barred Owl: 6 Jan. (1 singing) RM (TMS). *SAW-WHET OWL*: 9 Mar. (1 singing) GSMNP (MDW). Horned Lark: 19 Jan. (3) SV (GW); 14 Mar. (2) SV (HF, GE). Common Raven: 1-3 regular through-out period on RM (TMS, FWB); 9 Mar. (*nest with 7 eggs*) GSMNP (MDW).

Wren-Warbler: SHORT-BILLED MARSH WREN: 10 Nov. (1 very late) HC (TMS). Hermit Thrush: 2 Nov. (3) HC (TMS); 21 Dec. (1) GSMNP (DD); 24 Dec. (1) HC (TMS); 14 Feb. (1) HS (GW). Water Pipit: 9 Dec. (8) RC (GE, LRH). Solitary Vireo: 11 Mar. (1) very early GSMNP (DD). Yellow-rumped Warbler: noticeable decline this season. Pine Warbler: 10 Mar. (1) GSMNP (DD); 14 Mar. (1) Wil. L (HF).

Blackbird-Snow Bunting: Rusty Blackbird: 3 Dec. (1) GSMNP (DD); 28 Jan. (10) HS (MD, SG); 14 Mar. (7) SV (GE, HF). Evening Grosbeak: 18 Nov. (35 first returned) RM high elevation (GE, DJL); 28 Dec. (20) low elevation (HF); 3 Jan. (12) Bristol (Rosemary Bingham). Pine Siskin: 4 Nov. (150) RM (GE); 1 Feb. (75) GSMNP (DD); 9 Feb. (200) RM (HF, GE). Red Crossbill: 9 Dec. (20) Wat. L (LRH, GE); 19 Jan. (33) Wat. L (GW, HF, GE); 2 Feb. thru 27 Feb. (2 at feeder) HC (TMS). Savannah Sparrow: 10 Feb. (6) SV (HF, GW). Chipping Sparrow: 2 Mar. (2) first returned Eliz. (GE). White-crowned Sparrow: 22 Jan. thru 10 Mar. (1) Eliz. (HF). Fox Sparrow: 21 Dec. (2) GSMNP (DD); 25 Feb. (1) GSMNP (DD); 9 Mar. (1) RC (GW, GE, LRH). *SNOW BUNTING:* 13 Nov. (1) RM (TMS).

Locations: GSMNP—Great Smoky Mtn. National Park, HC—Heaton Creek (RM), HS—Hunter Swamp (near Eliz.), RC—Roans Creek, RM—Roan Mtn., SV—Siam Valley (near Eliz.), Wat. L—Watauga Lake, Wat. R—Watauga River, Wil. L—Wilbur Lake.

Observers: FWB—Fred Behrend; DD—Don Defoe; MD—Martha Dillenbeck; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee Herndon; DJL—Dick and Joyce Lura; PR—Pete Range; TMS—Tommy and Maxie Swindell; GW—Gary Wallace; JW—Jane Whitehead; MDW—Morris Williams; BY—Bill Yambert.

GLEN D. ELLER, Route #3, Grandview Terrace, Elizabethton 37643.

BACK ISSUES OF "THE MIGRANT"

Copies of *The Migrant* are now available as described below. Prices given include postage, and payments should be included with an order. Address all orders to: James T. Tanner, Route 28, Box 155, Knoxville, TN 37920.

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Volumes 3 to the present: The following numbers are available as photocopies: Vol. 4 (1933), nos. 1 (March) and 3 (Sept.); Vol. 5 (1934), nos. 1 (March) and 2 (June); Vol. 6 (1935), no. 1 (March); Vol. 9 (1938), no. 1 (March); Vol. 10 (1939), no. 1 (March). A few of the original printing of some of the above issues are being reserved for library orders.) Price of these printed issues: $1.00.

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IN MEMORIAM

Sadly, we report the death of Henry Oliver (Hot) Todd, Jr. on 27 January 1974. Mr. Todd operated a photographic studio in Murfreesboro for 41 of his 64 years. He spent endless hours in the outdoors and treasured relations with natural scientists and biologists.

He had an extraordinary collection of bird egg shells, collected by himself from Canada to Florida which numbered in to the thousands. Each shell was carefully indexed and catalogued and on display. Along with his collection of shells, he had an extensive collection of photographs of birds and nests. Many of his photographs have been published by the Smithsonian Institution.

Among his egg shell collection were more than 100 sets of vulture eggs. Known to his friends as the "vulture's best friend" Todd held the scavengers in high esteem and once had one as a pet for two years.

Mr. Todd also was a collector of antique furniture, coins, guns, porcelain china and a wide array of artifacts, many of them of historical value. He was a member of the Tennessee Ornithological Society and of the American Ornithological Union.

Survivors include two sons, Harvard Todd and George Todd, both of Murfreesboro, and two grandchildren.

SEEN ANY MONK PARAKEETS?

Tennessee birders should be on the lookout for a newly introduced bird species that may soon be invading the state. The new species is the Monk Parakeet, originally from South America. Recently, there have been numerous reports of the Monk Parakeet in the Eastern United States. This bird may become another Starling, competing with native birds for food and nesting sites, as well as destroying valuable crops. With its spread comes widespread concern and according to Larry Richardson of the Tennessee Wildlife Resources Agency, that Agency would like to be advised of any sighting within Tennessee. Please contact the nongame office of the Tennessee Wildlife Resources Agency, Ellington Agricultural Center, Box 40747, Nashville, Tennessee 37204.

LETTER TO THE EDITOR

Dear Gary:

I was mildly surprised to read the comments by Bierly, Harshaw and Parrish in the March 1973, issue of *The Migrant* concerning their views on bird collecting. My concern is not whether those particular Western Kingbirds should or should not have been collected, but that this incident was used to support a general condemnation of collecting. I have occasionally collected birds, both in Tennessee and Florida, and very much disagree that ". . . there is absolutely no need anywhere in North America north of Mexico for bird collecting because of the advance stage of ornithology in this area." Several good reasons can be given for modern ornithologists to collect but I will site one, as an example of how good scientific study with collecting can produce information of considerable value for management and preservation of species or populations. Careful collecting can provide statistically significant samples of food habit information from stomach analyses, and allow for correlation of food habits with data on amounts of environmental contaminents detected in avian tissues. Much of the success by ornithologists and environmentalists in demonstrating cause and effect relationships between contaminents and declining numbers within avian populations (*e.g.*, eagles, Ospreys, pelicans, wading birds, etc.) has been possible because of this sort of careful collecting. Surely these scientists have the greatest concern for the species they study, and are certain that their collecting has no adverse results for the species or populations of concern. Some such collecting might well be done in Tennessee for species potentially endangered by known environmental contaminents, as a means for determining present contaminent levels and to provide a base for measurement of future trends of concentrations and distribution of the pollutants.

Sincerely yours,

John C. Ogden, Research Biologist

EIGHTH ANNUAL
SYMPOSIUM AND FALL MEETING
TENNESSEE ORNITHOLOGICAL SOCIETY

23-24 NOVEMBER, 1974

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The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

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NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and ROUND TABLE NOTES, and should conform to the A.O.U. Check-list 5th edition, 1957. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

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IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

REPRINTS: Reprints are available on request. Reprint requests should accompany article at the time of submission. Billing to authors will be through the state T.O.S. Treasurer.

Books for review and articles for publication should be submitted to the editor. Seasonal reports and items should be forwarded to the appropriate departmental editor whose name and address will be found on the inside front cover.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

SMITHSONIAN
FEB 12 1975
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JUNE, 1974
VOL. 45, NO. 2

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 45 JUNE, 1974 NO. 2

FALL 1972 TELEVISION TOWER CASUALTIES IN NASHVILLE

KATHERINE A. GOODPASTURE

Fall bird-casualties at Nashville television towers, WSM and WSIX, September-October, 1972 were the lightest since 1967.

WSM was covered daily 1 September through 15 November; WSIX 1 September through 31 October and on 1 and 8 November. Total casualties collected, including parts of 25 unidentifiable birds, numbered 556 of 58 species. WSIX yielded 199 individuals of 40 species, WSM 357 individuals of 49 species. This count of 556 stands in contrast to totals of 5,734 in 1968 (Laskey, *Migrant,* 40:25-27, 1969), 3,787 in 1970 (Laskey, *Migrant,* 42:14-15, 1971), 1,125 in 1971 (Bierly, *Migrant,* 44:5-6, 1973) and 349 in 1967 (Laskey, *Migrant,* 39:25-26, 1968.

Description of the towers and the techniques for handling the casualties has been published previously (Laskey, *Migrant,* 31:61-65, 1960). During daily collections the pattern was to find a few birds on 2 or 3 days in succession followed by 3 to 5 days without casualty. Only 4 dates warrant comment.

On 5 September 69 casualties at WSIX and 61 at WSM constituted the heaviest September kill. A weak front passed on the afternoon of the 3rd. There was low ceiling with light rain on the night of the 4th, plus ground fog and light rain on the morning of the 5th. The highest species counts were 27 Red-eyed Vireos at WSM plus 6 at WSIX followed by 14 Ovenbirds at WSIX and 4 from WSM.

A strong cold front with winds 33-44 miles per hour passed about 22:00 on 29 September. Light rain and low ceiling continued after midnight with strong north and northwest winds. On the morning of 30 September 29 birds (11 Ovenbirds) were picked up at WSM and no birds were found at the other tower.

On the morning of 15 October 94 casualties (65 WSIX; 29 WSM) were collected. Combined species counts gave 23 Yellow-rumped Warblers and 11 Palm Warblers. With two Swamp Sparrows and one Vesper collected on 14 October and the appearance of three Savannah Sparrows, one Chipping, one Field, four White-throated Sparrows and one Fox on the list for 15 October the "sparrows were in." From the morning of the 13th through the afternoon of the

TABLE I

FALL 1972 TELEVISION TOWER CASUALITIES AT NASHVILLE [1]

Species	WSM	WSIX	Total	Dates
Pied-billed Grebe	3	2	5	Sept.6(1);20($\underline{1}$);Oct.14(1);15(1,$\underline{1}$)
Virginia Rail	3	0	3	Sept.22(2);Oct.26(1)
Mourning Dove	1	0	1	Oct.18(1)
Common Flicker	0	1	1	Oct.19($\underline{1}$)
Acadian Flycatcher	1	0	1	Oct.18(1)
Least Flycatcher	1	0	1	Sept.17(1)
Red-br. Nuthatch	1	1	2	Oct.29($\underline{1}$);Nov.13(1)
House Wren	1	0	1	Oct.8(1)
Long-b. Marsh Wren	3	0	3	Oct.1(1);15(2)
Gray Catbird	4	0	4	Oct.7(2);15(1);26(1)
Wood Thrush	4	1	5	Sept.22(1);Oct.7($\underline{1}$);14(1);15(1);18(1)
Swainson's Thrush	1	3	4	Sept.4(1);10($\underline{1}$);13($\underline{1}$);24($\underline{1}$)
Gray-chk. Thrush	1	0	1	Oct.30(1)
Veery	1	2	3	Sept.5(1,$\underline{2}$)
Gol.-cr. Kinglet	14	3	17	Oct.14($\underline{1}$);15(1,$\underline{1}$);17(1);18(8);24(1);Nov.8(2,$\underline{1}$);13(1)
Ruby-cr. Kinglet	13	0	13	Oct.8(1);16(2);18(10)
Solitary Vireo	1	0	1	Oct.18(1)
Red-eyed Vireo	34	11	45	Sept.4($\underline{4}$);5(27,6);6(2);9(1);23(1);24($\underline{1}$);Oct.14(1);18(1); 23(1)
Blk.-and-wht. Warb.	7	4	11	Sept.4($\underline{1}$);5(6,$\underline{2}$);Oct.2($\underline{1}$);14(1)
Worm-e. Warbler	1	2	3	Sept.5($\underline{2}$);Oct.18(1)
Golden-wg. Warbler	1	0	1	Sept5(1)
Tennessee Warbler	90	18	108	Sept.5(7,$\underline{9}$);6($\underline{1}$);9(4,$\underline{2}$);10(1,$\underline{1}$);12(2);17(1);21($\underline{1}$); Sept.22($\underline{1}$);23(1);28($\underline{1}$);30(5);Oct.14(1);15(2,$\underline{1}$);Oct.16(1); 18(62);19($\underline{1}$);22(1);24(1);Nov.1(1)
Nashville Warbler	9	0	9	Sept.9(1);Oct.18(7);25(1)
Parula Warbler	2	0	2	Oct.15(1);30(1)
Yellow Warbler	1	1	2	Sept.5(1,$\underline{1}$)
Magnolia Warbler	13	3	16	Sept.5(3);6($\underline{1}$);9($\underline{1}$);10(1);16(1);24($\underline{1}$);30(2);Oct.1(1); 7(1);14(3);18(1)
Yellow-ru. Warbler	15	14	29	Oct.15(10,$\underline{13}$);18(4);19(1,$\underline{1}$)
Blk.-t. Green Warb.	13	4	17	Sept.22($\underline{1}$);30(1);Oct.1($\underline{1}$);14(1);15(1,$\underline{2}$);16(1);18(9)
Cerulean Warbler	0	2	2	Sept.5($\underline{2}$)
Blackburnian Warb.	2	5	7	Sept.5(2,$\underline{4}$);Oct.15($\underline{1}$)
Chest.-sided Warbler	6	4	10	Sept.4($\underline{1}$);5($\underline{2}$);16(1);30(3);Oct.14(1);15($\underline{1}$);18(1)
Bay-br. Warbler	7	0	7	Sept.17(1);30(1);Oct.14(2);15(1);18(2)
Palm Warbler	7	10	17	Oct.9(2);14(1);15(1,$\underline{10}$);18(2);22(1)
Ovenbird	29	38	67	Sept.4(1);5(4,$\underline{14}$);6($\underline{1}$);9($\underline{2}$);16(1);17(1);20($\underline{2}$); Sept.22(3,$\underline{1}$);23(1);24($\underline{9}$);30(11);Oct.2($\underline{2}$);6(1);7($\underline{1}$); Oct.14(1);15(1,$\underline{5}$);17($\underline{1}$);18(4)
No. Waterthrush	1	6	7	Sept.5($\underline{5}$);30(1);Oct.8($\underline{1}$)
Kentucky Warbler	6	10	16	Sept.4($\underline{2}$);5(4,$\underline{7}$);9(1,$\underline{1}$);30(1)
Conn. Warbler	0	1	1	Sept.5($\underline{1}$)
Com. Yellowthroat	7	1	8	Sept.6($\underline{1}$);23(1);30(1);Oct.6(1);14(1);15(1);18(2)
Orange-cr. Warbler	1	0	1	Oct.17(1)
Yel.-br. Chat	5	4	9	Sept.5(2,$\underline{4}$);6(1);16(1);17(1)
Wilson's Warbler	1	0	1	Oct.15(1)
Canada Warbler	1	2	3	Sept.5(1,$\underline{2}$)
American Redstart	1	5	6	Sept.4($\underline{1}$);5(1,$\underline{3}$);Oct.2($\underline{1}$)
Red-wg. Blackbird	0	1	1	Oct.29($\underline{1}$)
Northern Oriole	2	1	3	Sept.5(1);6(1,$\underline{1}$)
Cardinal	0	1	1	Oct.15($\underline{1}$)
Rose-br. Grosbeak	6	1	7	Sept.30(2);Oct.7(1,$\underline{1}$);18(2);22(1)
Indigo Bunting	19	3	22	Oct.2($\underline{1}$);14(1);15(2,$\underline{2}$);18(16)
Dickcissel	1	1	2	Oct.15($\underline{1}$);18(1)
Rufous-s. Towhee	0	1	1	Oct.15($\underline{1}$)
Savannah Sparrow	1	2	3	Oct.15(1,$\underline{2}$)
Vesper Sparrow	1	0	1	Oct.14(1)
Chipping Sparrow	0	1	1	Oct.15($\underline{1}$)
Field Sparrow	0	1	1	Oct.15($\underline{1}$)
Wht.-thro. Sparrow	2	2	4	Oct.15(1,$\underline{2}$);Nov.1(1)
Fox Sparrow	0	1	1	Oct.15($\underline{1}$)
Swamp Sparrow	2	9	11	Oct.14(1,$\underline{1}$);15($\underline{8}$);18(1)
Song Sparrow	1	0	1	Oct.18(1)
Unidentified	9	16	25	Sept.5($\underline{3}$);Oct.7($\underline{1}$);12($\underline{1}$);14(1,$\underline{2}$);15($\underline{9}$);16(3);Oct.18(2); 21(1);28(1);Nov.1(1)
Total	357	199	556	

---

[1] Numbers in parenthesis indicate birds collected that day. Underlined numbers indicate birds collected at WSIX, not underlined collected at WSM.

14th the wind was from the north. Early on the 15th (after midnight) the north wind was at 15-20 mph with a fairly low ceiling.

The collection of 141 birds at WSM on the morning of 18 October became the heaviest toll of the season. On that morning no casualties were found at WSIX. The list of 23 species was led by 62 Tennessee Warblers, 16 Indigo Buntings and 10 Ruby-crowned Kinglets. There was light rain in the afternoon of the 17th and heavy thunder and rain early on the 18th. Rain continued preceeding passage of the front later in the day. The bird-fall actually preceeded passage of the front on this occasion.

One Cardinal collected 15 October at WSIX adds a species to the casualty list that has cumulated over the years. It is recognized as a tower casualty but we will not speculate on its place in the scheme of migration. A Parula Warbler collected 26 October at WSM established a date 9 days later than the previous late date for this area. One Connecticut Warbler, one Orange-crowned Warbler, one Golden-winged Warbler and one Solitary Vireo were of interest. Highest casualty counts for the season were 108 Tennessee Warblers and 67 Ovenbirds. Sixty-two Tennessee Warblers collected 18 October are significant only to show that species still migrating in good numbers on that date. I would not attempt any explanation of why no birds fell at WSIX on the date of the highest casualty at nearby WSM. Full details of the 1972 collection are given in Table I.

We are indebted to Mrs. Amelia R. Laskey for her continued interest in the project as we also are to Mr. P. J. New of the U. S. Weather Bureau for supplying notes on the weather. We appreciate the kind assistance of staff members at both WSM and WSIX.

Collection of the casualties was a cooperative effort by Frances Abernathy, Michael Bierly (coordinator for WSIX), Clara Fentress, William Finch, Katherine Goodpasture, Earl Henry, Louise Jackson, Pauline Miller, Anne Nichols, Marjorie Patrick, Virginia Price, Heather Riggins, John Riggins and Ann Tarbell.

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James T. Tanner, Curator T. O. S., Route 28, Box 155, Knoxville 37920.

ANNUAL AUTUMN HAWK COUNT

THOMAS W. FINUCANE

The Tennessee Ornithological Society fall hawk count for 1973 was the second highest in the 24 years since its beginning in 1950. The totals were 20,531 Broad-winged Hawks and 412 other hawks (in 1968 the count exceeded 24,000). Five or more reports were received from each of the following stations: Mendota Fire Tower on Clinch Mountain, Russell County, Virginia; Crossville, near the residence of Gene and Adele West; Kyles Ford Fire Tower where Route 70 crosses Clinch Mountain 44 miles west-southwest of the Mendota Fire Tower; Fall Creek Falls State Park Fire Tower 140 miles farther along on the same line; and Dunlap Fire Tower 50 miles on U. S. 127 south of Crossville and 16 miles due south of Fall Creek Falls State Park. The Gate City Fire Tower and the Rockwood Fire Tower are also on the 185-mile line between Mendota and Fall Creek Falls.

More than 95% of the count was made in the 11 days between 16 and 26 September, while only 77% of the 316 hours of observation fell within this interval. The halfway point in the count came early, on 20 September. Observations were made every day from 11 September to 6 October, except 14, 28, and 29 September, when adverse weather prevailed. These days were just outside the limits of the 95% count and probably were a controlling factor. Heavy clouds, fog, and rain were encountered also on 23 September, the day when we expect the migration peak.

The Mendota Fire Tower had the highest day's count and also 64% of the total count, after having failed to achieve either of these distinctions since 1968 when it had 7,446 Broad-winged Hawks on 21 September and 54% of the season's count. The individual high counts in the years between were made at two other regular stations, Fall Creek Falls and Dunlap, and two chance encounters, 4,246 reported by Lee Shafer, eight miles east of Fall Creek Falls State Park, in 1970, and 2,072 reported by Eugene Scott on a series of ridges parallel to and north of Clinch Mountain, where we could see the north ridges bathed in sunshine while we sat on the Mendota Fire Tower under a dark cloud and saw only one hawk.

The average for the last six years was 15,646 Broad-winged Hawks (while the average for Hawk Mt., Pa., was 17,786); for the eight years before, it was 7,622, and for the first nine years it was 2,191. In the 1968-73 interval the weighted average halfway point was 22.7 September, and the periods during which 95% of the hawks were recorded varied from 8 to 19 days and began, except for 1969, when only 4,215 hawks were counted, on 15, 16, or 17 September.

A new organization, the Hawk Migration Association of North America was established at the North American Hawk Migration Conference, held in Syracuse, N. Y., 19-21 April 1974. The purpose of this conference was to consider how better cooperation and exchange of information could be established among people interested in hawk migration, and so the new organization came into being. Michael Harwood, of Washington, Connecticut, hawkwatcher and author (*The View from Hawk Mountain*) is president of the new organization.

Besides launching the Hawk Migration Association of North America, the conference included formal presentation of papers ranging in topics from "The History of Hawk Migration Research in North America" (Chandler Robbins) to "African Soaring Birds as Seen from a Motor Glider" (Colin Pennycuick)

ANNUAL AUTUMN HAWK COUNT 1973

No	Day	Obs	Hrs	Station	Alt	Wind	Sky	T	Sh	Co	Rt	Rs	Bwdg	MH	Os	Ks	Others			
1	9/8	CFU	4	Mendota FT	3018	-	5	75	-	-	-	-	2	-	-	-	-	-	-	-
2	11	CF	3	Mendota FT	3018	-	5	75	-	-	3	-	4	-	-	-	-	-	-	1
3	12	3	3	Mendota FT	3018	E-3	2	75	-	-	-	-	8	-	-	-	-	-	-	-
4	13	D	2	Rockwood FT	2040	E-4	5	65	-	-	-	-	-	-	1	-	-	-	-	-
5	13	CF	5	Mendota FT	3018	SE-2	4	75	1	-	-	-	275	-	-	-	-	-	-	1
6	15	A	4	Crossville	1860	N&SW-3	2	73	-	-	-	-	22	-	-	-	1a	6b	-	-
7	15	D	5½	Rockwood FT	2040	E-3	3	65	-	-	1	-	46	-	-	1		21b	-	-
8	15	TO	8½	Kyles Ford FT	2401	W-NW&E	4	73	5	-	2	1	111	-	1	-	-	-	-	3
9	16	L	2½	Dunlap FT	2240	SSW-3	1	68	-	-	-	-	-	-	-	-	-	-	-	-
10	16	A	7	Crossville	1860	SE-3	-	75	-	-	-	-	194	-	-	-	-	-	-	1
11	16	O	8½	Kyles Ford	2401	NE-E-W	1	70	2	-	2	3	468	-	-	-	-	-	-	5
12	16	CFQU	8	Mendota FT	3018	v. 0-1	0	70	1	-	2	-	1110	-	-	-	2a	1u	(big)	
13	16	HS	4	Mount Rogers	5200	-	1	72	2	1	2	-	603	-	-	2Gold Eagles				
14	17	A	4½	Crossville	1860	v. 0-2	5	-	-	-	-	-	72	-	-	-	-	1b	-	-
15	17	S	7	Mendota FT	3018	3-4	3	70	2	4	5	-	543	-	-	-	-	-	-	-
16	18	KL	2½	Dunlap FT	2240	N-4	3	56	-	-	3	-	13	-	-	-	-	-	-	-
17	18	A	6½	Crossville	1860	NE&W-3	3	65	-	-	-	-	649	-	-	-	-	1b	8f	-
18	18	S	2½	Mendota FT	3018	-	5	75	-	1	5	-	412	2	-	2	-	-	-	-
19	19	M	4	Fall Creek FT	2026	W-1	0	72	-	-	4	-	79	-	-	-	-	-	-	-
20	19	A	7½	Crossville	1860	S 0-3	0	60	-	-	-	-	26	-	-	-	-	-	-	1
21	19	D	4	Rockwood FT	2040	E 2-4	0	65	-	-	1	-	30	-	-	-	-	-	-	-
22	19	B	8	Holston Hinob	4150	SE-S-N	2	50	-	-	1	-	99	1	-	-	1a	-	-	-
23	19	F	7	Gate City FT	3300	N 0-3	1	57	-	-	2	-	342	-	-	-	1a	-	-	1
24	19	SY	7½	Mendota FT	3018	0-4	2	67	-	2	7	-	845	-	4	2	Peregrine			
25	20	LI	3	Dunlap FT	2240	N 0-3	3	70	-	-	2	-	341	-	-	-	-	-	-	-
26	20	AE	5	Crossville	1860	WNW-2	3	75	-	-	-	-	677	-	-	-	-	-	-	-
27	20	CFQS	8½	Mendota FT	3018	S 0-2	#	64	-	1	1	-	3851	-	4	-	-	-	-	-
28	21	M	3	Fall Creek FT	2026	W-2	3	75	-	-	2	-	40	-	-	-	Bald Eagle			
29	21	L	1½	Dunlap FT	2240	SSW-1	0	83	-	1	-	-	2	-	-	-	-	-	-	-
30	21	A	5½	Crossville	1860	S-SE&W	3	80	-	-	-	-	442	-	-	-	-	-	-	-
31	21	CFS&	7½	Mendota FT	3018	SE 0-3	3	65	-	1	-	-	241	-	-	-	-	-	-	-
32	22	MV	5	Fall Creek FT	2026	W-2	2	75	1	1	-	-	150	1	-	-	-	-	-	-
33	22	33	7	Dunlap FT	2240	SW-3	3	72	3	-	3	-	75	-	-	-	1a	-	1f	-
34	22	A	5	Crossville	1860	SW-2	4	-	-	-	-	-	12	-	-	-	-	-	-	-
35	22	D	4	Rockwood FT	2040	S-3	4	68	-	-	-	-	1	-	1	-	1b	-	-	-
36	22	B	7½	Jane Bald	5800	S 4-2	3	60	-	-	-	-	55	-	-	-	-	-	-	-
37	22	37	3½	Holston Radar	4100	S	3	70	-	-	-	-	121	-	2	-	-	-	-	2
38	22	TOX	8	Kyles Ford FT	2401	S-2	3	70	11	2	7	-	762	1	4	-	-	-	-	5
39	22	FJ	6½	Gate City FT	3300	S-W-2	2	80	-	-	1	-	503	-	-	-	1a	1b	-	-
40	22	W	7*	Mendota FT	3018	-	-	-	-	-	-	-	1100	-	-	-	-	-	-	-
41	23	M	5	Fall Creek	2026	W	2	75	-	-	-	-	506	1	-	-	-	-	1f	-
42	23	L	1½	Dunlap FT	2240	NW-SW	5	80	-	-	-	-	13	-	-	-	-	-	-	-
43	23	A	6	Crossville	1860	SW-NW	2	80	-	-	-	-	414	2	-	-	-	-	8f	-
44	23	B	4	Jane Bald	5800	-	5	-	-	-	-	-	4	-	-	-	-	-	-	1
45	23	T	3	Kyles Ford FT	2401	SW 2-3	5	70	1	-	-	-	-	-	-	-	-	-	-	-
46	23	FJNZ	7	Mendota FT	3018	S-1	3	76	1	2	1	-	512	1	2	-	-	-	-	-
47	24	MV	3½	Fall Creek FT	2026	ESE-2	2	72	-	-	-	-	336	-	-	-	-	-	-	-
48	24	A	5	Crossville	1860	SE-2	1	80	-	-	-	-	108	-	-	-	-	-	-	-
49	24	CF	5	Mendota FT	3018	v.-1	1	85	-	-	-	-	1537	1	-	-	-	-	-	-
50	25	A	6	Crossville	1860	SE-1	2	80	-	-	-	-	99	-	-	-	-	-	1f	-
51	25	S	6½	Mendota FT	3018	- -	-	-	4	1	5	-	863	-	3	1	-	-	-	-
52	26	M	5	Fall Creek FT	2026	E-SE 3	2	75	2	-	-	-	130	-	-	-	-	2b	-	-
53	26	S	8	Mendota FT	3018	-	-	-	7	2	5	-	1457	-	4	-	-	-	-	-
54	27	A	5½	Crossville	1860		5	75	-	-	-	-	-	-	-	-	-	3b	-	-
55	30	M	2½	Fall Creek FT	2026	SE-1	3	72	-	-	-	-	65	1	-	-	-	-	-	-
56	30	LP	1½	Missionary Rg	1100	0	4	76	-	-	-	-	37	-	-	-	-	-	-	-
57	30	A	2	Crossville	1860	-	5	-	-	-	-	-	31	-	-	-	-	-	-	-
58	1	A	3½	Crossville	1860	SW 0-3	4	75	-	-	-	-	51	-	-	-	1a	-	3f	-
59	2	A	4	Crossville	1860	SW 0-3	3	-	-	-	-	-	7	1	-	-	1a	-	1f	-
60	4	CF	2	Mendota FT	3018	S 0-2	2	76	10	3	1	1	17	-	1	-	-	-	-	4
61	5	CF	1½	Mendota FT	3018	N 2-0	5	-	-	2	-	-	-	1	-	-	-	-	-	-
62	6	O	6	Kyles Ford FT	2401	E-SE	3	-	7	-	6	2	5	-	1	1	-	-	-	4
63	6	CFNU	5	Mendota FT	3018	SE-2	2	-	1	-	4	-	13	2	-	-	-	-	-	5
64	22	CF	4	Mendota FT	3018	S-1	3	-	1	-	4	3	-	2	-	-	1a	3b	-	3
TOTALS			316						62	24	82	10	20531	17	28	7		114		

*estimated

and including papers on limits of vision, telementry tracking of migrants, rader studies, meteorology, trapping and banding, identification, the surprising increase in Osprey migration counts, hawk diseases, and eagle migration in the Midwest.

It was planned to give everyone an opportunity to present a ten-minute account of his hawk migration project, on the evening before the first day of the formal paper program. But there were 300 people present; only 100 had been expected. I was not able to give the T.O.S. program the treatment it deserves. The short presentations and the formal papers were taped and are being incorporated into a PROCEEDINGS. All the formal papers and many of the ten-minute accounts, especially some of those given in the early part of the session, should make the PROCEEDINGS an outstanding book in any hawkwatcher's library.

A standard report form has been printed and will be distributed to hawk-migration stations and returned with data to a central evaluation and storage place via regional editors. No plans have been announced for an annual summary report, but I think that project will be taken into consideration after the work on preparation of the PROCEEDINGS has been completed. I have agreed to do the paper-work in our region, which includes West Virginia and parts of Kentucky, Tennessee, Alabama, Georgia, South Carolina, North Carolina, Virginia, and Maryland.

Our program will continue to operate as it has been, as long as the T.O.S. and the individuals who conduct the program want it to continue. Anyone who would like to join the HMANA or to have a copy of the PROCEEDINGS, please contact the writer.

KEY TO REPORTERS

A—Adele and Gene West; B—Fred Behrend; C—Charlotte Finucane; D—David and Marion Pitts; E—Helen Lewis and Margaret Lawson; F—Tom Finucane; H—Homer and Garland Osborne; I—Beth Craig; J—Joe Finucane; K—Ken Dubke; L—Lil Dubke; M—Mary and David Shafer; N—Marion Finucane; O—Tom Odom; P—Ann Gibson; Q—Bob Quillen and Mack Bowen; S—E. E. Scott; T—Tom Odom III; U—Mike and Barney Finucane; V—Debbie Shafer; W—Watauga Audubon Society; X—Eddie Clevinger; Y—Greg Newton, Logan and Frank Kaylor; Z—Kyle Williams, Mike and Barney Finucane, Nem and Candy Culin, Lee and Lois Herndon, Homer, Garslan, and Ellen Osborne, John and Connie Martin, Bob Quillen, Tom and Connie Green; 3—Peter Morison, Mr. and Mrs. Arthur Garrett; 33—Frances and Jim Barnwell, Branson Block, Gary Bayne, Tom Atherton, Beth and Graham Craig, Jane and Cecil Clark, Del Blum, Linda Collins, Lil Dubke, Gary Goggins, Ruby and Doc Griffith, Mrs. E. L. Griggs, Frank Hixon, Jeff Husk, Daniel and Lemuel Jacobson, Susie Keister, Joel Meyer, Gussie and Gene Smith, Edna Westmoreland; 37—Charlotte Finucane and Marion, Girl Scout Troop 218, Gary Wallace and Benjamin.

BEAUFORT WIND SCALE

0—less than 1 mph; 1—1 to 3 mph; 2—4 to 7 mph; 3—8 to 12 mph; 4—13 to 18 mph; 5—19 to 24 mph; 6—25 to 31 mph.

SKY CODE

0—no clouds; 1—generally fair, with no long periods in shadow; 2—partly cloudy; 3—mostly cloudy; 4—light overcast; 5—heavy overcast, heavy fog, or rain.

Detailed description of wind, sky, and temperature are filed with the individual reports.

* * * * * * * *

MINUTES OF THE ANNUAL MEETING, 1974

ANNUAL BOARD OF DIRECTORS' MEETING

The Tennessee Ornithological Society held its 59th Annual Spring Meeting on 4-6 May 1974, at Pickwick Landing, Tennessee with the Memphis Chapter acting as host chapter.

The meeting was called to order by the President, Mrs. Noreen Smith, with twenty-nine directors present.

Minutes for the Fall meeting were approved as printed in *The Migrant.*

Copies of the Treasurer's Report having been distributed to the directors present, the motion was made and passed to accept the Treasurer's Report as printed. Mr. Ken Dubke, Treasurer, was unable to attend. Mr. Henry Dinkelspiel, Chairman of the Finance Committee, reported the Treasurer's books in good order and the Society solvent. The Finance Committee made the following statements concerning the financial status of the Society: 1. the recurring expenses are about equal to the dues income; 2. no increase in dues at this time, and; 3. the expense for the arm patches was an initial outlay and returns would compensate for the gross outlay for payment. The Finance Committee recommended that it study the possibility of a larger return on the endowment investment which is now with Massachusetts Investment Trust.

Dr. Gary Wallace, Editor of *The Migrant* asked that chapters continue to submit articles and pictures for printing. *The Migrant* is frequently late due to the delay in receiving the season report. Gary Wallace asked that the season reports be mailed in as soon as possible, preferably fifteen days after the previous season deadline. The number of pages in *The Migrant* will be increased from 24 to 28 or 32 in order to include additional reports. However, with the increase in printing, mailing and the additional page increase, Dr. Wallace suggested a possible increase in dues if no other resources are available.

Mr. Morris Williams, State Count Compiler, asked that if there were any unusual sightings to include details such as time, exact location, weather, etc. The Audubon forms are acceptable for the Christmas Count as well as the forms that are usually mailed prior to the count.

Mr. Glen Eller, Vice President of East Tennessee urged all chapters to encourage the long standing members who have temporarily drifted away to rejoin. He stated that many of the chapters in East Tennessee had been working with the Fish and Wildlife services and would continue in its new efforts to protect wildlife and locate areas for preservation.

Reverend William Senter reported activities of the Non-Game Wildlife Program and the Non-Game Endangered Species Act. The latter being just drafted by the State Congress. The state will receive about three million dollars for land acquisition and other related areas. Reverend Senter suggested that chapters could and should report to Ken Dubke, a representative of the Non-Game Wildlife Program, any species in danger of extinction, habitat necessary for breeding of uncommon species in danger of being destroyed, or any land which could be set aside in its natural state for preservation.

Dr. George Mayfield, Conservation Committee Chairman, reported that Radnor Lake had been bought for approximately three million dollars. Sections of the South Fork has been made a preserve by an act of Congress. Savage Gulf has been purchased by the State, with the possibility of sections of Obed and Clear Creeks, and some undisturbed gorges near Crossville being added later. The Tennessee Valley has not cooperated with the lowering of the water at Duck River, consequently many trees are dying. It was reported that there were about sixty-five Great Blue Heron nests, with about fifty to fifty-five occupied.

Reverend William Senter, Chairman of the Dixon Merritt Memorial, reported that the State had not decided what sections of Cedars of Lebanon State Park would be included at this time. One section of Cedar Glade has been closed to the public and only those with special permits for special study are allowed to use the area.

Dr. Richard Lura, Chairman of the Committee for the Study of the Feasibility of Compiling T.O.S. Records on Computer, stated in a written report that the computerization of Tennessee bird records at this time is not recommended because of the need for individuals on a statewide basis to volunteer a "tremendous time and effort . . . to begin and perpetuate the program on a statewide basis." Mr. George Hervy moved that the Feasibility of Compiling T.O.S. Records on Computer be removed from consideration until some future time. The motion was seconded and passed.

Mr. Miser Richmond moved that the Bequest from the Gordon Briley Estate be taken under consideration at the Fall meeting as three members of the committee (Mr. John Ellis, Chairman) were unable to attend. The motion was seconded and passed.

Dr. Dan Gray, Chairman of the Nominating Committee, read the slate for President Elect and Curator. Mr. Ray Jordan was nominated for President Elect and Dr. James Tanner for Curator. Mr. Glen Eller moved we accept the recommendations and Alice Smith seconded. The slate was accepted as presented.

FURTHER ANNOUNCEMENTS

The Spring Foray will be held in Grundy County, May 24-27, 1974 with headquarters at Manchester.

Avifauna No. 3 is in the process of being printed and it is planned at this time to place the copies available for $1.00 in museums, state parks, and book stores upon release. Chapters will be able to purchase them for resale.

All chapters who have new officers and directors should send this information with the addresses and phone numbers to the State Secretary, Mrs. James E. Waldron, 1626 Yorkshire Drive, Memphis, TN 38117. You should also include the date your chapter was formed if known.

Memorial cards are now available. Send a check made out to the Tennessee Ornithological Society with the name of the person memorialized and the name and address of the person to whom the card is to be sent. This information with the check should be mailed to the State Secretary.

Mrs. Noreen Smith announced the formation of three new chapters since the Fall meeting, Campbell County with 20 members, Highland Rim with 13 members and Columbia.

The Fall meeting will be at Paris Landing, 22-23 November 1974.

The Columbia Chapter extended an invitation to all chapters to attend the Spring Meeting 2-3 May 1975. Details will be mailed later.

The Fall meeting in 1975 will be at Fall Creek Falls.

The TVA has issued a new Bird Checklist in the TVA system. Any suggestions for additions, deletions or changes are welcomed.

Reverend William Senter requested that T.O.S. submit a new, up-dated checklist to the Tennessee Wildlife Resources Agency. Dr. Katherine Goodpasture, Reverend William Senter, Dr. James Tanner and Dr. George Mayfield will work as a committee to make the necessary changes and suggestions.

The meeting of the Board of Directors was then adjourned.

ANNUAL BUSINESS MEETING

Following the banquet at Pickwick Landing Inn the Business meeting was called to order. Mrs. Noreen Smith, President, welcomed all the members. The roll was called with 111 in attendance.

Mrs. Noreen Smith presented to the members the items which had been discussed at the Board of Directors meeting. These included the Treasurer's Report, the report from the Editor of *The Migrant,* the Vice-Presidents, Report of the Standing Committees, the reports of the special committees, the nomination of our new President-Elect and Curator. A motion was made by Reverend Senter to accept the nominations, Mrs. Lula Coffey seconded; the motion was passed.

Mrs. Sue Bell reported for the Resolutions Committee. The report is attached as part of these minutes.

The speakers for the evening were Mr. and Mrs. Ben B. Coffey, Jr. They presented a very interesting, informative and entertaining slide presentation of their trip of Napal. The slide presentation included not only birds but some very beautiful scenes of the surrounding area.

Mrs. Noreen Smith expressed appreciation to the various officers and committees for their efforts in making the meeting a success. The meeting was adjourned.

MARTHA WALDRON, *Secretary*

RESOLUTIONS

The Tennessee Ornithological Society extends to its Officers and the members of the Memphis Chapter, our host for this meeting, our appreciation and thanks for their excellent planning, which has made it such a happy and pleasant occasion for us all.

Our special thanks to Miss Alice Smith, Vice-President of West Tennessee and general chairwoman, for this meeting and to her committee, all of whom have contributed so much to its success; and to Mr. and Mrs. Ben B. Coffey, Jr. for sharing their extraordinary birding experience in Napal and India with us.

To the State of Tennessee we express appreciation of their interest in preserving natural areas, and for their new Non-Game Wildlife Program.

We wish to recognize the absence of four of our devoted and faithful members, deceased since our 1973 Spring meeting: Mr. Albert Ganier, Founder; Mrs. Amelia Laskey, Life Member (both of them from the Nashville Chapter); Mrs. H. O. Todd of Murfreesboro Chapter; and Mrs. Charles Lowry of the Bristol Chapter. They will be greatly missed and the fruits of their contributions to our organization will live on after them.

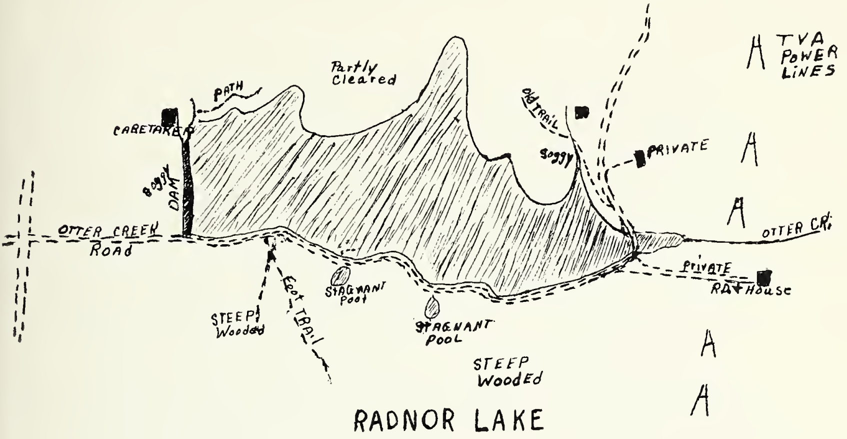
Respectfully submitted, Mrs. Sue M. Bell, Chairwoman, Miss Alice Gant, Mrs. Lois Herndon.

Martha Waldron has replaced David E. Patterson as the regional compiler of the season report for the Western Coastal Plain Region. Help Martha with her work on the editorial staff of *The Migrant* by reporting your records on time. Our thanks to David for his work in the T.O.S. He is now living in Maryland.

BIRD FINDING IN TENNESSEE

RADNOR LAKE—BIRD HOME AND HAVEN

KATHERINE A. GOODPASTURE



Historically *THE* place near Nashville to look for "something good" on the bird scene has been the Radnor Lake area. Since the earliest days of the Nashville Bird Club Radnor Lake and its environs have offered always a satisfying and often an exciting place to look for birds in any season. In 1951 Olin S. Pettingill, Jr. in his book, *A Guide to Bird Finding East of the Mississippi*, recommends Radnor Lake as one of the good bird-finding places in the Nashville area.

In the early days Bird Club groups wandered widely and freely through the woods surrounding the lake owned at that time by the Louisville and Nashville Railroad. In more recent years under other ownership restrictions on walking through the woods have prevailed so that trips to the lake were limited to walks along the public road that follows the edge of the south side of the lake. In spite of this restriction Radnor Lake remained an area of prime choice for birding because of its attractiveness for both resident and transient species of land as well as water birds. During the years some 219 species have been recorded for the Radnor area and 72 of those are recognized as breeding.

Because of its proximity to an ever expanding urban population the threat of residential development has come nearer and nearer over the past 3 or 4 years. During the summer of 1973 an heroic effort by many people brought together $1.3 million from the State of Tennessee, $1.7 million from the Federal Government and $513,000.00 collected as donations by the local citizenry to meet the purchase price of approximately 667 acres of wooded hills and the 80-acre lake. On 16 August 1973 Radnor Lake and adjacent watersheds were purchased by the State as a Natural Scientific Area included in the Tennessee Natural Areas System and a new chapter in the story of bird study at Radnor Lake began.

Management plans conforming to Natural Areas, Class II guidelines are being drawn up by the Tennessee Department of Conservation under the direction of Mr. Tim McCall, Project Administrator for Natural Areas. These plans will include development of nature trails and an educational program which should make wildlife of the area a part of the lives of an increasing number of people and it is anticipated that bird study there in the future will surpass even the "old days."

Radnor Lake lies on Otter Creek Road south of the inner city of Nashville, east of Granny White Pike and west of Franklin Road. This is a 20-25 minute drive from downtown Nashville. Radnor Lake is easily accessible from all points of Metropolitan Nashville-Davidson County. The lake was formed behind a dam built across Otter Creek by the L and N Railroad about 1913. The topography of the area is that of steep hills and narrow hollows so that the lake filled into several coves that offer hiding places for wintering ducks and nesting Wood Ducks. The tops of these hills represent remnant bits of ridges rising to 1000 feet and more. Very recently a limited extent of cleared land on the north side of the lake sown to fuscue introduces a habitat unnatural to the area.

Motor approach to this birding area may be by several routes. An easy approach is via Hillsboro Road going south from Woodmont Boulevard 3.7 mi. to Otter Creek Road; turn left onto Otter Creek Road 2.6 mi. to the lake (6.3 mi. from Woodmont Boulevard to the dam at Radnor Lake via Hillsboro and Otter Creek Roads). It is recommended to drive over the dam to the caretaker's residence where limited parking space is available. One may tramp around the north side of the lake, scanning the coves, to the east end coming onto Otter Creek Road at the head of the lake. At present part of this hike is hard going through underbrush and tangles. One must pull around soggy points of coves. Once back on the road a walk of 0.8 mi. takes you back to the car. The walk around the lake may take 2 hours more or less depending on the rate at which one does field work.

From the caretaker's residence one might elect to recross the dam on foot and to tramp on Otter Creek Road along the lake's south edge toward the east end of the lake. The road is a country road, well traveled but not heavily. During migrations of small land birds this walk can prove exciting. Always of interest are 2 stagnant "ponds" on the woods side of the road and a larger one at the east end. Green Herons, Prothonotary Warblers, Acadian Flycatchers, in season, Carolina Wrens and woodpeckers may be noticeable. Ducks can probably be observed better from the road than from the north side of the lake. There is a very limited parking space at a "wide place" in the road at the east end. This is an entrance to a private driveway and *should never be blocked.* Ventures into the deep wooded hollows and up the ridges south of the road are made less often. Nesting wood warblers, vireos, Wood Thrushes, Summer Tanagers and the like are to be found there.

As previously alluded ornithologists will find Radnor Lake attractive any season of the year. During the winter ducks shuttle in and out. Eight to 12 or 15 species may be seen on a winters day. Forty or so Common Goldeneyes and somewhat fewer Buffleheads may be found fairly regularly. Scaups may build up to a sizeable raft and occasionally coots may reach a count of 200-300.

During migration Horned Grebes, 1 or 2 Old Squaws or rarely 1 or 2 White-winged Scoters may appear for a day or two. Great Horned Owls and Barred Owls hoot from the woods. Wooded coves shelter Winter Wrens and Hermit Thrushes. Fields below the dam and cleared areas under TVA power lines may hold Field, White-throated, Song and Swamp Sparrows. Seven woodpeckers may be found including the Pileated regularly but rarely a Red-headed.

In summer the lake's edge supports a notable number of Prothonotary Warblers. Yellow-throated Warblers and Louisiana Waterthrushes usually make themselves known. Creuleans may sing from the tall trees. The highest hills have held Scarlet Tanagers. Yellow-throated Vireos and White-breasted Nuthatches are found fairly regularly. One of the most interesting species is the Wood Duck. At the end of one nesting season Miss Mary Wood reported a raft of 90-100 Wood Ducks—both young and adult. In recent years Blue Grosbeaks have been found regularly along the level stretch of road below the dam. Beyond the east end of the lake one can listen for Blue-winged Warblers and Prairies.

During migration periods Radnor furnishes a good rest area for a long list of transients. I have seen literally swarms of warblers along the lake's edge. One day it may be hundreds of Yellow-rumped Warblers. Another day it may be Palms or Tennessees. Notable flights of swallows appear over the lake in migration. Occasionally an Osprey visits for a day or two. Black Terns appear over the water in passage. A few other terns and fewer gulls have been recorded. As already stated migrating waterfowl build up a fair species list during migration. An occasional shore bird may be spotted but muddy edges are too narrow to attract waders.

The next few years will no doubt see development of marked foot-trails, a Nature Center and some marked parking space. A resident Caretaker and a Park Ranger will be on regular duty.

When you are in Nashville with a couple of hours to spare slip out to Radnor Lake and spend them "birding" with the best feathered birds of the season.

3407 Hopkins Lane, Nashville 37215.

Addendum: A recent directive limits parking to two areas: 1) at the caretaker's cottage and 2) *OFF* the road at the small house on the left near the east-end property line. *DO NOT PARK ON OTTER CREEK ROAD.*

1974 SPRING FIELD DAYS

MORRIS D. WILLIAMS

Thirteen counts during the twenty-ninth annual spring field days resulted in the compilation of a grand total of 210 species—second only to last year's record-breaking 215 species. Undoubtedly, the higher counts in recent years is attributable to the increasing number of participants and the fact that some counts are being extended beyond the usual one-day count periods. This year's state-wide count period extended over 15 days from 27 April-12 May.

Among the more unusual species reported were the Red-throated Loon and the Laughing Gull. The Painted Bunting graces our spring count again after an absence of fourteen years.

The only count appearing for the first time is Lawrence County.

The thirteen counts are tabulated as they occur from west to east across the state.

INFORMATION ON THE COUNTS

MEMPHIS—Shelby Forest State Park—28 April; 07:00-11:30; sunny, 70°. Ben B. Coffey, Jr. (compiler—672 N. Belvedere, Memphis 38107). The Brant had been present since winter and had been identified by several T. O. S. members.

REELFOOT—Reelfoot Lake, Walnut Log, Cate Landing, Tipton's Ferry, and south on levee to Tenn. 79; 11-12 May. Ben B. Coffey, Jr., and Mike Bierly (compilers—672 N. Belvedere, Memphis 38107, and 3826 Bedford Ave., Nashville 37215), 10 observers from Memphis, 8 observers from Nashville.

PICKWICK—Pickwick Landing State Park, Shiloh Park, and nearby areas—4-5 May. Ben B. Coffey, Jr. (compiler—672 N. Belvedere, Memphis 38107), observers were the many T. O. S. members attending the state meeting. Red-throated Loon seen by many observers; Laughing Gull seen by Lloyd Clayton; 3 unidentified *Empidonax* flycatchers were also seen.

LAWRENCE COUNTY—Five Points, Deerfield, and Laurel Hill Wildlife Management Area—5-7 May. Two observers: Lloyd Clayton, Morris D. Williams (compiler—Five Points 38457). Orange-crowned Warbler by L. C.

COLUMBIA—1-2 May (noon-noon); 1 May overcast, 2 May rain; 50°-75°. Seven observers: George R. Mayfield, Jr. (compiler—Sunnyside Drive, Columbia 38401).

NASHVILLE—Portions of 25-mile radius of Nashville—27-28 April (midnight-midnight); clear; 53°-85°; wind S, 10-15 mph. Forty-nine observers in 10 parties and 12 yards. Mr. and Mrs. B. H. Abernathy, Frances Abernathy, Mr. and Mrs. Acuff, Clyde Anderson (compiler—1214 McGavock Pike, Nashville 37216), Vivian Anderson, Dr. Artist, Sue Bell, Michael Bierly, Mary Ann and Roy Broster, Mr. Burkstrom, Ruth Castles, Mrs. Cloyd, Dot and Paul Crawford, Annella Creech, Milbrey Dugger, Evelyn and John Ellis, Bill and Salley Fintel, Mrs. Foster, Clara Fentress, Ben Groce, John and Martha Herbet, Mrs. A. B. Herron, Mrs. Holt, Louise Jackson, Carol Knauth, Bob Meadows,

1974 SPRING FIELD DAYS

	Mem	Reel	Pick	Law	Colu	Nash	Murf	Leb	Cook	Knox	King	Bri	Eli
Caspian Tern	—	—	1	—	—	—	—	—	—	—	—	—	—
Black Tern	—	—	—	—	—	1	—	—	—	—	—	—	—
Rock Dove	—	—	—	22	—	40	—	22	—	94	—	—	15
Mourning Dove	4	42	45	146	27	217	56	87	123	365	30	11	71
Yellow-bld. Cuckoo	1	12	3	2	1	8	—	—	—	—	1	1	1
Black-bld. Cuckoo	—	1	1	—	—	—	—	—	—	1	1	—	—
Barn Owl	—	—	—	—	—	1	—	2	—	3	—	—	—
Screech Owl	—	—	—	4	1	7	—	5	2	11	—	—	4
Great Horned Owl	—	—	—	—	2	2	—	3	—	1	—	1	1
Barred Owl	—	6	1	5	2	7	—	8	—	4	—	—	3
Chuck-will's Widow	1	—	7	16	6	2	1	4	—	26	—	2	—
Whip-poor-will	—	—	—	14	21	30	2	1	—	3	—	—	25
Common Nighthawk	1	49	—	3	2	4	4	16	—	3	5	—	1
Chimney Swift	8	41	48	52	53	354	209	83	86	329	22	16	131
Ruby-th. Hummingbird	8	26	9	4	1	23	4	6	4	9	1	—	10
Belted Kingfisher	—	2	4	6	5	23	5	4	1	14	1	1	11
Common Flicker	2	5	13	4	—	33	7	1	25	35	6	9	32
Pileated Woodpecker	1	9	9	6	7	31	2	3	4	14	2	2	11
Red-bel. Woodpecker	16	15	24	19	14	76	4	9	31	33	11	2	1
Red-hd. Woodpecker	20	9	16	3	2	9	6	4	8	3	—	—	1
Yel.-bel. Sapsucker	1	—	—	—	—	4	—	—	1	8	—	—	2
Hairy Woodpecker	3	5	1	1	3	26	—	2	5	8	2	—	10
Downy Woodpecker	9	10	16	24	18	68	15	14	7	28	9	1	27
Eastern Kingbird	1	30	30	24	16	53	17	41	11	8	4	1	2
Great-cr. Flycatcher	12	32	32	17	8	40	3	6	—	10	7	—	—
Eastern Phoebe	4	6	12	8	3	35	—	13	6	18	6	2	47
Acadian Flycatcher	8	18	6	5	9	7	—	—	—	—	3	—	4
Willow Flycatcher	—	—	—	—	—	—	—	—	—	—	—	—	—
Least Flycatcher	—	—	—	—	—	1	—	—	—	—	—	—	3
E. Wood Pewee	6	31	25	8	5	11	1	2	2	1	5	—	3
Olive-sd. Flycatcher	—	1	—	—	—	—	—	—	—	—	—	—	—
Horned Lark	—	22	3	6	6	3	—	—	—	1	—	—	2
Tree Swallow	1	10	4	—	4	45	—	—	—	9	—	—	5
Bank Swallow	5	50	1	—	4	—	—	—	—	5	—	—	3
Rough-wgd. Swallow	—	—	27	9	14	30	—	4	—	51	9	2	60
Barn Swallow	50	100	90	154	57	208	71	133	54	194	20	11	110
Cliff Swallow	2	—	100	—	—	1	—	5	4	5	—	—	—
Purple Martin	1	33	35	5	16	55	116	15	29	130	32	—	8
Blue Jay	45	25	60	54	38	410	139	126	193	403	52	54	180
Common Raven	—	—	—	—	—	—	—	—	—	—	—	—	7
Common Crow	1	32	19	45	36	128	48	57	75	214	31	13	94
Fish Crow	4	3	—	—	—	—	—	—	—	—	—	—	—
Carolina Chickadee	24	40	27	31	29	168	48	49	24	176	17	12	82
Tufted Titmouse	38	20	40	31	32	195	14	26	53	136	27	11	88
Wht.-br. Nuthatch	2	4	3	—	2	13	—	—	11	3	1	—	15
Red-br. Nuthatch	—	—	—	—	—	1	—	—	—	6	—	—	24
House Wren	—	—	—	—	—	6	2	1	6	5	7	2	14
Winter Wren	—	—	—	—	—	—	—	—	—	—	—	—	34
Bewick's Wren	—	—	1	5	3	9	3	1	—	—	—	—	—
Carolina Wren	48	34	45	30	21	118	10	21	27	187	49	7	112
Sh.-bl. Marsh Wren	—	—	1	—	—	—	—	—	—	—	—	—	1
Mockingbird	3	8	25	35	41	186	121	159	50	268	14	18	51
Gray Catbird	7	3	17	24	8	36	20	3	9	18	8	2	23
Brown Thrasher	4	9	35	30	16	104	56	41	27	76	10	7	35
Robin	5	17	40	20	46	251	150	40	121	367	60	41	262
Wood Thrush	24	9	65	8	15	54	3	5	10	67	35	3	63
Hermit Thrush	4	—	—	—	—	1	—	1	—	—	—	—	—
Swainson's Thrush	10	10	7	7	8	13	—	1	—	10	14	—	1
Gray-cheeked Thrush	5	16	2	—	1	1	—	—	—	—	—	—	—
Veery	8	3	6	—	3	4	—	—	—	3	1	—	3
Eastern Bluebird	1	2	45	55	16	171	14	28	39	60	5	—	13
Blue-gr. Gnatcatcher	60	46	22	28	34	96	2	14	2	72	5	—	33
Gold.-cr. Kinglet	—	—	—	—	—	—	—	—	—	—	—	—	4
Ruby-cr. Kinglet	1	1	1	2	2	29	—	3	—	49	1	1	13
Water Pipit	—	—	—	—	—	—	—	1	—	9	—	—	—
Cedar Waxwing	—	90	8	—	35	73	4	—	7	93	35	—	3
Loggerhead Shrike	3	7	7	22	4	28	9	14	3	3	—	—	1
Starling	6	300	32	52	65	616	*	195	136	1084	77	82	309
White-eyed Vireo	30	22	30	32	17	125	6	12	10	56	6	—	36
Yellow-thr. Vireo	8	7	15	2	4	17	—	2	—	21	5	—	6
Solitary Vireo	—	2	—	2	—	1	1	—	—	4	—	—	40
Red-eyed Vireo	25	24	25	22	16	52	13	2	10	59	41	—	12
Philadelphia Vireo	—	8	—	—	—	2	—	2	—	—	—	—	—
Warbling Vireo	1	18	3	2	1	4	—	—	—	—	—	—	2
Blk.-and-wh. Warbler	—	—	16	1	5	12	1	7	—	33	15	—	44

1974 SPRING FIELD DAYS

	Mem	Reel	Pick	Law	Colu	Nash	Murf	Leb	Cook	Knox	King	Bri	Eli
Prothonotary Warbler	24	50	5	2	6	46	6	3	—	2	—	—	—
Swainson's Warbler	1	1	1	—	—	—	—	3	—	—	—	—	—
Worm-eat. Warbler	—	—	4	—	4	20	—	4	—	28	5	—	11
Golden-wng. Warbler	—	—	1	—	—	2	—	—	—	6	—	—	—
Blue-wng. Warbler	—	—	2	5	7	36	2	2	—	7	—	—	3
Tennessee Warbler	18	52	44	5	14	23	5	2	1	24	7	—	—
Orange-cr. Warbler	—	—	—	1	—	—	—	—	—	—	—	—	—
Nashville Warbler	—	—	—	—	1	7	1	3	1	37	—	—	—
Parula Warbler	20	9	2	5	3	10	—	1	—	8	—	—	53
Yellow Warbler	1	10	17	4	11	56	9	19	—	35	6	—	51
Magnolia Warbler	—	8	5	6	—	—	2	—	2	1	—	—	—
Cape May Warbler	—	3	—	—	—	2	—	4	—	12	7	—	3
Bl.-th. Blue Warbler	—	—	—	—	—	—	—	3	—	1	2	—	28
Yel.-rumped Warbler	4	11	25	9	16	573	13	46	6	194	34	1	25
Black-th. Green Warbler	3	1	12	3	3	12	1	1	—	21	—	—	30
Cerulean Warbler	16	4	3	1	5	11	—	1	—	22	2	—	—
Blackburnian Warbler	—	1	8	1	—	—	—	1	—	2	1	—	1
Yellow-th. Warbler	1	6	—	5	2	18	—	2	3	9	—	—	9
Chestnut-sd. Warbler	1	5	14	7	2	4	—	1	—	7	1	—	39
Bay-breasted Warbler	2	5	24	5	—	2	—	3	—	13	11	—	—
Blackpoll Warbler	1	100	10	2	3	7	1	1	—	18	—	—	2
Pine Warbler	—	—	10	1	—	3	—	—	1	5	1	—	3
Prairie Warbler	—	—	7	16	10	65	—	20	32	39	—	—	6
Palm Warbler	1	3	8	38	10	99	4	11	4	8	—	1	2
Ovenbird	2	2	14	2	1	8	—	3	—	10	23	—	109
No. Waterthrush	—	3	1	2	1	4	—	2	—	3	—	—	1
La. Waterthrush	6	—	6	8	3	36	—	3	2	7	2	—	21
Kentucky Warbler	16	12	28	11	10	44	1	6	4	4	—	—	3
Common Yellowthroat	13	30	32	53	18	105	7	38	45	91	11	—	21
Yellow-br. Chat	5	9	20	24	17	65	1	7	3	30	10	—	2
Hooded Warbler	6	2	6	1	4	7	—	2	2	24	8	—	36
Wilson's Warbler	—	4	1	1	—	—	—	—	—	—	—	—	—
Canada Warbler	—	—	—	—	—	1	—	—	—	1	4	—	1
American Redstart	22	10	10	6	3	15	—	1	—	5	5	—	2
House Sparrow	8	75	35	22	25	81	*	46	40	109	14	9	95
Bobolink	1	55	30	179	—	—	—	—	—	—	1	—	—
E. Meadowlark	10	68	82	112	75	419	146	210	190	479	31	21	115
Red-wng. Blackbird	18	450	65	87	90	387	56	234	100	358	45	9	74
Orchard Oriole	12	28	60	44	22	121	31	31	—	19	4	—	13
Northern Oriole	8	49	7	8	—	36	5	2	—	17	4	3	4
Rusty Blackbird	—	6	—	—	—	3	—	—	—	—	—	—	16
Common Grackle	32	350	180	82	95	831	*	290	275	876	139	123	436
Brown-hd. Cowbird	75	70	70	46	32	167	45	103	77	264	26	9	100
Scarlet Tanager	7	7	15	9	6	24	2	6	3	25	6	1	19
Summer Tanager	25	18	28	4	10	63	2	11	5	30	10	—	1
Cardinal	50	90	70	98	53	492	197	183	188	415	85	38	140
Rose-br. Grosbeak	15	18	27	18	20	36	3	2	—	46	7	1	26
Blue Grosbeak	1	—	3	20	2	11	2	1	5	4	—	—	1
Indigo Bunting	40	152	125	153	42	129	16	31	16	74	47	—	7
Painted Bunting	1	—	—	—	—	—	—	—	—	—	—	—	—
Dickcissel	16	145	12	13	—	1	—	1	—	—	—	—	—
Evening Grosbeak	—	—	—	—	—	5	—	—	—	38	—	20	138
Purple Finch	—	—	—	1	—	17	1	—	3	18	—	2	27
Pine Siskin	—	—	—	4	37	49	33	12	—	49	—	5	58
American Goldfinch	6	26	80	52	265	398	327	151	107	230	7	16	256
Red Crossbill	—	—	—	—	—	—	—	—	—	22	—	—	—
Rufous-sd. Towhee	12	3	48	29	21	142	67	41	15	182	14	22	127
Savannah Sparrow	7	—	6	11	—	12	—	8	13	24	—	—	16
Grasshopper Sparrow	1	—	3	10	2	6	—	7	—	4	—	—	—
Vesper Sparrow	—	—	—	—	—	—	—	1	—	—	—	—	—
Lark Sparrow	—	—	—	—	—	—	—	1	—	—	—	—	—
Dark-eyed Junco	—	—	—	—	—	—	—	—	—	2	—	3	87
Chipping Sparrow	3	5	15	17	16	68	30	16	14	30	—	22	34
Field Sparrow	1	15	3	102	37	178	60	48	57	110	33	5	58
White-cr. Sparrow	—	—	1	2	22	13	24	60	—	12	—	1	6
White-th. Sparrow	16	—	22	39	19	233	40	71	85	285	4	13	88
Fox Sparrow	—	—	—	—	—	—	2	—	—	—	—	1	—
Lincoln's Sparrow	—	—	2	5	1	1	—	2	—	—	—	—	—
Swamp Sparrow	—	2	2	8	13	53	—	16	—	12	—	—	8
Song Sparrow	—	1	—	—	—	3	2	7	28	224	26	22	154
Species, Total	108	130	135	121	128	163	89	132	73	143	95	53	143
Species, Grand Total	210												

*Numereus

1974 SPRING FIELD DAYS

	Mem	Reel	Pick	Law	Colu	Nash	Murf	Leb	Cook	Knox	King	Bri	Eli
Common Loon	—	—	8	—	1	6	—	—	—	—	—	—	3
Red-thrtd. Loon	—	—	1	—	—	—	—	—	—	—	—	—	—
Horned Grebe	—	—	—	—	—	1	—	—	—	—	—	—	7
Pied-billed Grebe	—	1	—	—	1	2	—	—	—	1	—	—	1
D.-c. Cormorant	—	6	—	—	—	—	—	—	—	1	—	—	—
Great Blue Heron	—	17	1	—	—	1	—	2	—	—	—	—	2
Green Heron	2	7	7	4	3	30	3	14	—	8	4	—	13
Little Blue Heron	—	24	—	3	—	1	—	—	—	—	—	—	—
Cattle Egret	—	4	—	1	3	3	—	—	—	—	1	—	—
Great Egret	—	14	—	—	1	1	—	—	—	—	—	—	—
Bl.-cr. Night Heron	—	1	—	—	—	7	1	2	—	—	—	—	—
Yel.-cr. Night Heron	—	4	—	—	—	2	—	—	—	—	—	—	2
American Bittern	—	1	—	—	1	—	—	—	—	—	—	—	1
Canada Goose	—	—	—	—	—	39	—	111	—	45	—	—	—
Brant	1	—	—	—	—	—	—	—	—	—	—	—	—
Snow Goose	—	—	—	—	—	—	—	1	—	—	—	—	—
Mallard	—	12	2	—	7	48	—	17	—	1	—	10	7
Blue-winged Teal	6	—	5	—	17	42	2	11	—	—	5	—	7
American Wigeon	—	—	9	—	—	—	—	—	—	—	—	—	2
Wood Duck	9	33	1	9	7	24	—	4	—	11	8	—	16
Redhead	—	—	—	—	—	—	—	1	—	—	—	—	—
Ring-nk. Duck	—	—	—	—	—	—	—	—	—	1	—	—	—
Lesser Scaup	—	—	40	—	—	28	2	—	—	50	—	—	2
Bufflehead	—	—	—	—	—	—	—	—	—	—	—	—	18
Ruddy Duck	2	—	—	—	—	—	—	—	—	—	—	—	—
Hooded Merganser	—	1	—	—	—	—	—	—	—	—	—	—	—
Red-br. Merganser	—	—	2	—	—	—	—	—	—	—	—	—	2
Turkey Vulture	—	4	5	36	4	61	20	33	—	6	7	—	12
Black Vulture	2	3	2	13	3	21	5	38	—	—	2	—	—
Mississippi Kite	1	4	—	—	—	—	—	—	—	—	—	—	—
Cooper's Hawk	—	—	—	—	—	1	—	—	—	1	—	—	—
Red-tailed Hawk	1	1	2	3	2	16	1	3	1	4	—	—	6
Red-shouldered Hawk	1	4	—	1	—	3	—	—	—	—	—	—	1
Broad-winged Hawk	2	1	1	2	1	11	—	4	—	4	—	—	11
Marsh Hawk	—	—	—	—	—	—	1	1	—	—	—	—	—
Osprey	—	4	—	—	1	—	—	—	—	2	—	—	4
American Kestrel	1	1	6	9	4	21	7	13	6	1	3	—	4
Ruffed Grouse	—	—	—	—	—	—	—	—	—	—	3	—	5
Bobwhite	2	3	45	62	20	96	27	38	29	93	16	—	32
Turkey	1	—	—	2	—	—	—	—	—	—	—	—	—
Virginia Rail	—	—	—	—	—	1	—	1	—	—	—	—	—
Sora	—	—	—	1	5	3	—	1	—	—	—	—	3
American Coot	—	22	1	—	9	8	10	3	—	1	—	—	2
Semipalmated Plover	—	2	3	—	5	3	—	—	—	—	—	—	—
Killdeer	5	21	10	16	10	79	25	22	5	55	13	1	26
Am. Golden Plover	—	—	—	—	2	—	—	—	—	—	—	—	—
American Woodcock	—	—	—	—	2	1	—	—	1	4	—	—	—
Common Snipe	1	—	2	—	3	16	2	5	—	5	—	—	16
Spotted Sandpiper	—	4	3	1	6	17	—	1	—	8	4	1	3
Solitary Sandpiper	1	2	—	3	7	21	13	2	—	11	5	—	18
Willet	—	—	53	—	—	7	—	—	—	—	—	—	—
Greater Yellowlegs	—	2	3	—	3	6	—	2	—	—	6	—	2
Lesser Yellowlegs	7	—	20	1	12	17	—	4	—	4	4	—	8
Pectoral Sandpiper	—	15	—	—	—	1	—	—	—	—	—	—	—
Least Sandpiper	—	17	—	1	22	11	5	—	—	2	8	—	17
Dunlin	—	—	—	—	—	—	—	—	—	—	—	—	2
Semipal. Sandpiper	—	10	—	—	4	—	—	—	—	2	2	—	—
Western Sandpiper	—	—	—	—	—	9	—	—	—	—	—	—	—
Herring Gull	—	—	2	—	—	1	—	—	—	—	—	—	—
Ring-billed Gull	—	—	4	—	—	43	—	—	—	—	—	—	—
Laughing Gull	—	—	1	—	—	—	—	—	—	1	—	—	—
Bonaparte's Gull	—	—	—	—	—	12	—	—	—	—	—	—	—
Forster's Tern	—	—	1	—	—	—	—	—	—	1	—	—	—
Common Tern	—	—	—	—	6	11	—	—	—	—	—	—	—
Least Tern	—	1	—	—	—	—	—	—	—	—	—	—	—

Pauline Miller, Fanny Murphy, Ann Nichols, Marge and Oscar Patrick, Chap Percival, Virginia Price, Heather and John Riggins, William Scurlock, Mrs. Sweeney, Mrs. Alex Taylor, Lawrence Trabue, Mrs. Albert Weinstein, Mr. and Mrs. George Woodring. Unidentified on the count were two *Empidonax* flycatchers and one *Buteo* hawk.

MURFREESBORO—27-28 April; mostly sunny; 65°-78°. Twenty observers covered approximately 60 miles by car. Anne Hettish (compiler—1018 Lawndale Dr., Murfreesboro 37130).

LEBANON—Wilson County—29-30 April; clear; 70°. Ray Pope (compiler—211 West Forest Ave., Lebanon 37087). Swainson's Warblers identified by William Senter by sight and call; Vesper Sparrow identified by Ray Pope, John Sellars, and William Senter.

COOKEVILLE—27 April; 06:00-17:00; fair; 60°-70°. Sixteen observers: Beulah Clark, Dr. and Mrs. J. O. Cummins, Roy Hinds, Amy Johnson, Bill Jones, O. Ray Jordan, Mr. and Mrs. T. Link, Dr. and Mrs. Sidney McGee, Mrs. J. T. Moore, Miser R. Richmond (compiler—Box 5211, Cookeville 38501), Tim Smith, Randy Taunhouser, Thelma Tinnon.

KNOXVILLE—Knox Co.—28 April. Twenty-four observers: Winnifred Brown, James M. Campbell, Nancy Clark, Jim Holt, J. C. Howell, Susan Hoyle, Beth Lacy, Terry McGown, Chuck P. Nicholson, Louise Nunnally, Holly Overton, J. B. Owen (compiler—2930 North Hills Blvd., Knoxville 37917), Powell Puckett, Polly Ryder, Mabel Sanders, Mr. and Mrs. Boyd Sharp, Johneta Smith, Louis F. Smith, Ann Stevens, James T. Tanner, Bill Williams, Irene Williams, Morris D. Williams. The Laughing Gull was identified by Howell and Holt. Unidentified were 36 scaup ducks and 1 Merganser, *Mergus*.

KINGSPORT—11 May; 05:00-20:30; foggy and 55° in a.m. clearing by 08:00, Max. temp. 70°. Thomas J. Bowman (compiler—1012 Sevier Terrace, Kingsport 37660).

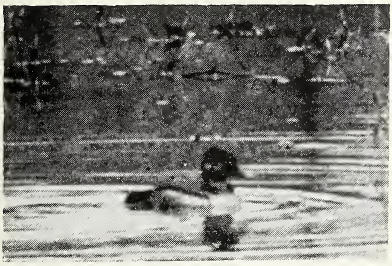
BRISTOL—27 April; clear; temp. mid-50's to mid-70's; Four observers in 2 parties; ten hours; seven miles on foot—32 by car. Observers: Judy Abbott, Con and Helen Ottenfeld, Diane Wilson (compiler—205 Robin Road, Bristol 37620).

ELIZABETHTON—surrounding counties—27 April; 48°-80°. Seventeen observers: Fred Behrend, Ed Davidson, Joy Dillenbeck, Helenhill Dove, Glen Eller (compiler—Rt. 3, Grandview Terrace, Elizabethton 37043), Harry Farthing, Sally Goodin, Lee and Lois Herndon, Dick and Joyce Lura, Danny Leach, John and Carolyn Martin, Tommy and Maxie Swindell, Gary O. Wallace.

Corrections: THE MIGRANT, Vol. 45, No.1, 1974. Page 11: Ruddy Duck—switch 3 Buffalo River column to Columbia column and 1 in Columbia column to Nashville column. Add dash to Buffalo River column; Page 15: Delete in Nashville paragraph, "In count area count week but not seen count day: Snow Goose, Ring-necked Pheasant, White-breasted Nuthatch, Cedar Waxwing." Add this deletion to Lebanon paragraph on page 16.

NEW SIGHTINGS FOR TENNESSEE

FIRST MASKED DUCK SIGHTING IN TENNESSEE—The Masked Duck (*Oxyura dominica*) is a small, cinnamon-colored duck whose normal range is northern South America and the West Indies. In spite of its tropical range, the Masked Duck has been observed in several eastern North American states, such as Massachusetts, Vermont, Wisconsin, and Louisiana (Peterson, Roger Tory. 1947. *A Field Guide to the Birds.* Houghton Mifflin Co., Boston). The sighting of this duck by my wife, Sally, and me on 11 April 1974, is the first recorded sighting in the state of Tennessee. This article covers the events surrounding the sighting, and a full description of the Masked Duck we observed.



Masked Duck. Photo by Paul Crawford, 15 April

On 11 April 1974 the sky was partially overcast, and the wind was strong out of the southeast at 20-25 mph. We were at the north end of Reelfoot Lake in the refuge area, exploring the floooded fields around several drainage sloughs for shore birds, of which there were an abundance. At approximately 14:00 CDT, while walking out alongside one particular flooded slough immediately adjacent to Reelfoot Lake itself, we observed a small duck with a tannish-orange breast. After a brief period of studying the duck through both 7 power binoculars and a 20 power telescope at a distance of about 60 yards, we realized that this was a duck neither of us had ever seen before. By referring to Robbins, C. S., B. Brunn, and H. S. Zim. 1966. *A Guide to Field Identification Birds of North America.* Golden Press, N. Y., we concluded that it could be no other than a male Masked Duck. Having made this preliminary conclusion, we slowly moved to within 30 yards of the bird and noted the following characteristic features: bill: dark blue-gray; front half of head: (its mask), rear border of mask not distinct (as compared with pictures in Robbins); back of head and neck: cinnamon colored; breast: tannish-orange; belly: whitish; feet: black and relatively large (observed when the duck was scratching itself); back: mottled black and cinnamon; portions of white wing speculum were observed while the bird was at rest; tail: stiff and fan shaped when erected—as that of a Ruddy Duck (*Oxyura jamaicansis*); overall size: slightly smaller than that of the Blue-winged Teal (*Anas discors*) which were observed in the same slough.

The above observations were made over a period of 15 minutes, occasionally with full sun at our backs, and primarily with a 20 power, wide angle Bushnell telescope. During this time, the bird was in shallow water less than two feet deep and was observed both preening and resting, but not feeding. The slough contained two small flocks of Blue-winged Teal, but at no time did we observe the Masked Duck associating with the Teal.

After this initial observation period, I circled around behind the duck to flush it past Sally, so we could make more complete observations of its wing markings. The duck did not flush until I was within 10 yards of it, and even then appeared tired, as it flew low for only 15 yards before settling back down in the same slough. During the duck's short flight, we clearly observed two large white speculums on the rear portions of its dark brown wings. We continued to observe the duck for about 10 more minutes, and then left so that we would not disturb it, in the hope that it would remain in the same slough for other observers.

After leaving the refuge, we notified a park ranger of the duck's presence, and placed a call to Margaret Mann of the Nashville Chapter of the T. O. S. Through ensuing phone calls, the Masked Duck was subsequently observed by Don and Gina Manning of McKenzie, Tennessee, late in the afternoon of 11 April. Benton Basham, Mike Bierly, Margaret Mann, and Pat Stallings observed the duck on 13 April, and on 15 April, Paul and Dot Crawford of Gallatin were, as far as we know, the last observers of this duck at Reelfoot. Sally and I did return to the slough the morning of 12 April and observed the duck for another 15 minutes from 8:45-9:00 CDT. At this time the duck was considerably more active and was observed flying over 100 yards. The duck continued to regain its strength, for by 15 April, the Crawfords observed it flying rapidly out of sight several times.

The duck was photographed by Paul Crawford using a 400 mm telephoto lens on a Mamiya/Sekor camera with high speed Ektachrome film. Close examination of these pictures revealed that the indistinct border of the mask contained several whitish feathers. Based on this and its whitish underparts, we believe that this duck was a juvenile (1 year old), male Masked Duck, for these are the two distinctive features of the juvenile male noted by Kortright, F. H. 1967. *Ducks, Geese and Swans of North America.* The Stackpole Co., Harrisburg, Pa.

The exact location of the slough is judged to be 30° 30' 10" N by 89° 19' 40" W, based on a 1969 U. S. Geological Survey Map for the Bondurant, Ky. Quadrangle (7.5 min. series), which places it about 300 feet south of the Kentucky-Tennessee state line in Obion County, Tennessee.

William A. Fintel, 25 Jones Circle, Old Hickory 37138.

SIGHT RECORD OF FERRUGINOUS HAWK IN SULLIVAN COUNTY, TENNESSEE—Between 16:45 and 17:00 on 18 April 1974 Alice Ulrich, Lois Herndon and the writer were birding on the north shore of Patrick Henry Lake, approximately a mile below Boone Dam. We were looking for waterfowl from the highway, overlooking the shallow area just below the islands in the lake, when our attention was attracted to the harrassing calls of crows almost directly overhead. Mrs. Ulrich discovered the object of their harrassment, which was circling not more than 100 meters from our observation loation. We all saw one crow swoop toward the raptor for a near miss, after which, the crows abandoned the attack and left the raptor to its own devices.

The sky was clear and we had an unobstructed view of the bird, with the sun behind us as the bird circled overhead, slowly gaining altitude and eventually disappearing from view, departing in a northeasterly direction. Good views were had, of the bird, both without and with binoculars. The behavior of the bird and season of the year, indicated that it was migrating, however, considerably out of its normal range.

The bird was a large buteo. The entire ventral surface was quite uniformly dull white with the exception of the tips of the primaries, which were dark. While circling and gaining altitude, we were able to see enough of the dorsal surface to determine that it was predominantly brownish with the exceptions of the proximal one-third to one-half of the tail, which was whitish while the remaining distal portion was rusty or ferruginous, with no suggestion of bars or bands. There were no perceptible wrist dark patches in the wings nor was there a visible "V" formed by the legs folded against the body.

According to W. Earl Godfrey, in his book *Birds of Canada* (1966) p. 94, under the heading Rough-legged Hawk (*Buteo lagopus*) who states ". . . Light phase (usually commoner) birds have a large dark wrist mark on the under side of the wing, white base to the tail, and (in immatures and most adult females) a conspicuous dark patch on the belly."

Bent—*Life Histories of North American Birds of Prey—Part I,* p. 165, under the heading Krider's Hawk (*Buteo jamaicensis kriderii*) states ". . . The adult is much like the eastern Red-tailed Hawk, but lighter colored; there is much white on the upper parts, the tail is pale rufous, and the underparts are nearly pure white, with very few markings and with only a pale buffy tinge to the thighs. . . ."

Robbins, C. S., B. Bruun and H. S. Zim in *Birds of North America* (1966) p. 70, under the heading Ferruginous Hawk (*Buteo regalis*) states ". . . Note V of dark legs against belly of light phase (this contrast is lacking in immatures)."

This observation was made about 40 miles (airline) in a southwesterly direction from the point where Glen Eller and the writer observed a bird of this species, in almost identical plumage on 14 January 1973, in Washington County, Virginia and published in *The Raven*, 44:70-73.

Considering the conditions under which this bird was observed, as well as size, shape and behavior and by comparing features of other raptors which have similar characteristics we feel sure that the bird we observed was a first year Ferruginous Hawk.

LEE R. HERNDON, 673 Golf Course Drive, Elizabethton 37643.

EDITOR'S NOTE: Documentation is detailed and complete. However, based on the criteria established by Alsop (*The Migrant,* 43:57-64) the Ferruginous Hawk should be considered as a hypothetical species.

BAND-TAILED PIGEON SIGHTING, NASHVILLE, TENNESSEE—On 9 April 1974 a Band-tailed Pigeon (*Columba fasciata*) was observed in the back yard of our home on Old Hickory Lake. Initially, at about 16:30 CDT, I observed a large gray bird glide across an opening in our backyard, and without the aid of binoculars, I thought it was probably a Rock Dove (*Columba livia*). However, its large size and glide on level wings aroused my curiosity. Upon closer observation with 7 x 50 binoculars at a distance of approximately 100 feet, I realized this bird was not a Rock Dove because it was iridescent on the back of its neck versus the front, as in a Rock Dove, and it had a white collar across the back of its neck above the iridescent area. By referring to Robbins (1966), I realized this bird most probably was a Band-tailed Pigeon. Subsequent verifying observations were then made by both my wife, Sally, and me using a 20 power Bushnell wide angle telescope. The bird was observed for 30 minutes with full sun at our backs at a distance of approximately 80 feet, and the following characteristics were noted: bill: orange-yellow with black tip; head: gray with white collar at back of neck; eye: yellow with red border; back of neck: iridescent patch of green-silver-gray below the white collar; wings: dark gray; rump: uniformly and completely gray (versus white in the Rock Dove); tail: also gray; dark band between gray rump and tail shown in Robbins (1966) was not present on this bird; breast: light gray; underparts behind feet: very light gray; feet: orange-yellow.

Based on these characteristics, the bird was positively identified as a Band-tailed Pigeon using the field guide by Robbins (1966) as a reference.

During the observation period, the bird moved among the upper branches of a large Chinquapin Oak (Petrides, 1958 and Collingwood, 1955), feeding on the hanging clusters of staminate flowers. The tree is located on a wooded bluff overlooking Old Hickory Lake. Our neighbor, Mrs. Robert (Rita) Riggs, who is not an experienced birder, also observed the bird through the telescope and noted the more obvious features of the black tipped orange-yellow bill and the white collar on the back of the neck.

In noting two key characteristics of the Rock Dove to be wings clapping on take-off, and gliding with raised wings, we were alert to observe our bird when it left. At take-off, I was able to see and hear that the bird's wings did not collide, rather they stroked about 45 degrees up and down from a horizontal plane. Its flight was very fast, and the bird disappeared out of sight across Old Hickory Lake headed toward Hendersonville, Tennessee.

This is the only Tennessee record we know of for a Band-tailed Pigeon based on an article entitled "A Preliminary List of Tennessee Birds" by Fred J. Alsop, III (Alsop, 1972). Mike L. Bierly of Nashville reported to us that a Band-tailed Pigeon was observed in Alabama during October 1971 (*American Birds*, 1972), and that Louisiana has had five records of a Band-tailed Pigeon (*American Birds*, 1973).

In his field guide, Robbins (1966) states that the Band-tailed Pigeon's normal range is the western oak and pine wood forests, and indicates that in the more northern parts of his range, the bird is migratory, arriving by about the first of May. We have also referred to descriptions and pictures of the Band-tailed Pigeon in four additional references (Bent, 1963; Kimble, 1973; Pearson, 1936; Wetmore, 1965) to confirm that the bird we sighted was indeed a Band-tailed Pigeon.

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WILLIAM A. FINTEL, 25 Jones Circle, Old Hickory 37138.

EDITOR'S NOTE: The Band-tailed Pigeon should be placed on the hypothetical state list since there is some doubt about the wildness of this bird. There is a good possibility that it is an escaped bird. In addition to other records given in the article Clell T. Peterson reported a Band-tailed Pigeon in Eddyville, Ky. (*The Kentucky Warbler,* 50(1):18-19) on 30 November 1973.

* * * * * * * *

RECORDS OF ALBERT F. GANIER PRESERVED IN THE ARCHIVES

Albert F. Ganier worked for many years in obtaining and organizing information on the birds of Tennessee. His notes and records are now saved in the Special Collection of the Library of the University of Tennessee at Knoxville where they will be protected and made available for use. They fill seven notebooks and two boxes of file cards. About a third of the material is on the birds of the Nashville area, and this includes records made by George R. Mayfield, Sr., Vernon Sharp, and Harry C. Monk. Two other areas which he explored repeatedly between 1918 and 1935 were Reelfoot Lake and The Great Smoky Mountains. His notebook on the Smokies contains diaries of his trips there, records of birds seen, and the reports of several other individuals which he had preserved. Lists of birds of eleven other localities are included, prepared by Mr. Ganier and others; the earliest of these was a list from Lookout Mountain made in 1882, and the most extensive is a summary of the nesting records from the Getty's egg collection made around Athens, Tennessee, between 1897 and 1909. One notebook contains bibliographical and historical material on the ornithology of Tennessee compiled by Albert Ganier and Harry C. Monk. Notes on the mammals of Tennessee are included. This material joins the records of Alfred Clebsch previously deposited in the special collection and is a very important addition to the archives of the ornithology of Tennessee, as any one familiar with Albert Ganier will understand.

ROUND TABLE NOTES

SANDHILL CRANE—At approximately 7:30 (CST) on 30 December 1972, Milbrey Dugger and I were participating in the annual Audubon Christmas Count. Our area begins at the Berry Chapel Road bridge over the Harpeth River approximately 1.4 miles west of Hillsboro Road. About .3 mile past the bridge we were walking through a cornfield where corn recently had been picked by a mechanical picker that had left grain on the ground. The bird raised its head when I was approximately 75 feet away. Through 7 x 35 binoculars we noted what appeared to be a completely gray bird. The bird took flight into a strong wind. When airborne it turned and flew with the wind—neck fully extended and legs trailing. We observed the Sandhill Crane (*Grus canadensis*) for approximately four minutes from sighting until it had flown out of sight.

Annella Creech, 1500 Woodmont Blvd., Nashville 37215.

MARBLED GODWIT IN WEST TENNESSEE—As I was walking on the island at Pace Point, Big Sandy Unit of the Tennessee National Wildlife Refuge, Henry Co., on 26 August 1972, a large all brown bird with a long bill and long legs suddenly glided over the island ahead of me. It made a graceful circle at the end of the island and landed at its point, out of my sight. I carefully worked around on the north side of the island, protected from view by a row of black willows (*Salix nigra*) until they terminated at the end of the island. Here at 100 feet I could see standing in the edge of the water a Marbled Godwit (*Limosa fedoa*).

Standing, the Marbled Godwit was observed to have a long, slightly upturned bill being dark the terminal half and dull orangeish the basal half; dark legs; and brown body with some white edged feathers. The bird fed and slept some while I observed it from 12:00-12:30 as close as 75 feet.

After I left it and was at the mid-point of the island, the godwit took off giving loud calls something like "god-o-whit" as it flew small circles over the water near the island's end. It then returned to its original resting place. I then sat down to wait for any Caspians Terns (*Hydroprogne caspia*) to appear (to make my fifth species of tern for the day) and could see the godwit appear occasionally from around the corner of the island.

The bird was finally left at 13:00, and Don and Gina Manning were called. They observed the Marbled Godwit at 16:00 and flushed it. They did not see it land again and it was not present the next day according to their observations. Photographs were taken and shown to several people, but due to the quality of them the bird could not be positively identified. The day was sunny with temperatures in the low 80's.

This is the third known record for the state, the third geographical region of the state in which it has been observed and the third consecutive fall that the species has been found in the state.

Michael Lee Bierly, 3826 Bedford Avenue, Nashville 37215.

RED-BELLIED WOODPECKER TRAPPED BY MUSHROOM—In late June of 1972, a pair of Red-bellied woodpeckers, *Centurus carolinus*, dug a nest cavity in a dead maple stump in Five Points, Lawrence County, Tennessee. The cavity entrance was only five feet from the ground. On 2 July, I found an adult incubating in the cavity. I was unable to frighten the bird from the nest in order to check the contents. During the following week, I made daily inspections of the nest at different times of the day. I always found an incubating bird on the nest. No amount of pounding on the stump would cause the bird to leave the cavity. On 9 July when I looked in upon the incubating bird, I noticed a small white spherical mushroom about ½-inch in diameter growing inside the cavity; it was on the top back side directly opposite the entrance. The mushroom appeared harmless and I did not disturb it. On 12 July I found the mushroom growing out of, and completely blocking, the cavity entrance. The part growing on the outside was about four inches in diameter. There was nothing to indicate that a nest cavity was located beneath the mushroom. One of the woodpeckers was calling from some nearby trees. There were several holes punctured in the mushroom which this bird had apparently pecked. I cut the mushroom out of the cavity. The other bird was sitting on the nest. Its head was leaning against the side of the cavity and its beak was gaped widely open. It was very warm inside the cavity. There were punctures on the part of the mushroom inside the cavity where the trapped bird had been pecking. After a few minutes the incubating bird left the nest. The birds were not found in or around the cavity again. The abandoned nest held four eggs.

MORRIS D. WILLIAMS, Five Points 38457.

NESTING BANK SWALLOWS IN KNOX COUNTY—A colony of nesting Bank Swallows (*Riparia riparia*) was examined on 20 May 1973, at Mascot in eastern Knox County, Tennessee. The existence of the colony had been reported to me a few days previously by Mr. Joseph Thornton and Mr. James Polhemus both of whom work at the zinc plant in Mascot.

On part of the plant's property are piles of tailings from the separation of zinc ore; the material consists of finely ground dolomite limestone with the consistency of fine sand. The colony was located in a bank of this material about 7 feet high and 70 feet long. All the nesting holes were in the top of the bank where its face was almost vertical. I counted 85 holes in good condition, but I am not sure that all were occupied. Judging from the swallow's behavior, I believe that some were incubating and others were bringing food to young. Mr. Polhemus said that the colony had been in existence for several years at approximately the same location, and that recently another colony had been established in a similar situation at the zinc plant near New Market, about 15 miles distant.

This appears to be the first record of nesting Bank Swallows in this part of Tennessee. Other records have been made from Washington County in the northeastern corner (*Migrant* 41:68, 1970), from Lake County in the northwestern corner (*Migrant* 43:48, 1972), and from the Memphis area in the southwestern corner (*Migrant* 25:52, 1954).

JAMES T. TANNER, Department of Zoology, University of Tennessee, Knoxville 37916.

DARK-HEADED JUNCOS IN RUTHERFORD AND WILSON COUNTIES—During the months of January and March of 1973 I had occasion to make some interesting observations of dark-headed, brown-flanked juncos in Rutherford and Wilson counties in middle Tennessee. As there have been reports emanating within the state of sightings of Oregon Juncos (*Junco oreganus*) during this period (and in previous years) I feel some comments on the present sightings and the others are in order.

The morning of 7 January 1973 began in Rutherford County with six inches of fresh snow on the ground and more falling. A short, but on this day lengthy, trip was made from the writers residence to the home of H. O. Todd, Jr. on Lascassas Road outside the city. There appeared, while we were observing birds coming to the feeding shelf, a junco unlike any Todd or I had seen before. Todd and I are both familiar with the Northern Slate-colored Junco (*J. hyemalis hyemalis*) and I have had considerable contact with the breeding Junco of our eastern Appalachians, the Carolina Slate-colored Junco (*J. hyemalis carolinenis*). The coloration of the bird in question, when compared with several other juncos present, tentatively led us to believe it to be an Oregon Junco. Todd, my wife Nancy, Bob Lassiter, and I observed this bird for approximately twenty minutes on the above date, sometimes as close as three feet. Todd continued to see the bird around his place for over a week, during which time others in the immediate vicinity also reported unusual dark-headed juncos at their feeders. It appears these birds departed when the weather warmed. On 18 March 1973, while birding at the Boxwell Boy Scout Reservation in northwest Wilson County, my wife and I observed a junco identical to the one we had seen at Todd's over two months before. The night before this second sighting occurred the temperatures had dropped into the twenties and there was passage of a major cold front and storm that had moved through from the west-northwest.

Both of the sightings described above involved dark-headed, brown-flanked juncos that might have been referred to in the field as Oregon Juncos with little difficulty. However, after some deliberation, I am reluctant to so identify these birds due to the similarity of the subspecies of Oregon Junco which might occur in our area, *J. oreganus montanus,* and the subspecies of the Slate-colored Junco, *J. hyemalis cismontanus* (Cassiar Slate-colored Junco), which is known to occur in the Mississippi Valley during the winter months (see Bent *Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows and Allies* Part Two, pp. 1021-1136 and, in particular, pp. 1049-1050 regarding *cismontanus;* and *The A.O.U. Check-list of North American Birds,* pp. 607-609). In future reporting of field sightings of dark-headed, pinkish to brown flanked juncos, observers need to be fully aware that it is usually impossible to accurately separate *J. oreganus* and *J. hyemalis cismontanus* (and the hybrids which so often occur in this genus) unless they are in-hand. As Mengel so aptly points out (*The Birds of Ken-*
these reported sightings do little more than evidence the presence of western
tucky, pp. 493-496 for an excellent discussion on the juncos in Kentucky),
birds. Efforts should be made to collect some of these birds so that correct placement can be determined.

Jon E. DeVore, Apt. A-5, 1510 Huntington Dr., Murfreesboro 37130.
Accepted for publication 2 April 1973.

ADDITIONAL COMMENT ON THE GENUS *JUNCO*—With the release of the thirty-second supplement to the *A.O.U. Check-list of North American Birds* (See *The Auk,* 90:411-418) taxonomists have indirectly, presented the Tennessee ornithologist with the same note of caution regarding sightings of birds of the genus *Junco* which I attempted to point out in my note entitled "Dark-headed Juncos in Rutherford and Wilson Counties". The more important (that is, relevant to Tennessee) taxonomic changes contained in the supplement regarding the genus may be summarized as follows: (1) the Oregon Junco (formerly *Junco oreganus*) is reduced to subspecific status within the enlarged species designation *hyemalis,* the revised latin name becoming *J. hyemalis oreganus.* The name Oregon Junco is retained as the common name for reference to this particular subspecies. (2) the common name of *J. hyemalis* (formerly Slate-colored Junco) is changed to Dark-eyed Junco. The latin and common names of subspecies formerly (and still) included within this species designation (i.e. *J. hyemalis carolinenis* Carolina Slate-colored Junco, *J. hyemalis cismontanus* Cassiar Slate-colored Junco and *J. hyemalis hyemalis* Northern Slate-colored Junco) remain unchanged. As one may well imagine, there will have to be a gradual resolution of the confusion brought about as a result of these name shifts.

The above mentioned taxonomic changes may seem to be a matter of little concern to the field observer. However, the exact opposite is probably nearer the truth. The evidence on which the changes are based indicates that, even though there may be varying degrees of separation in the breeding ranges and even in certain physical characteristics, there is sufficient morphological similarity to warrant inclusion within one large species. I must therefore again state that until adequate specimens are secured within the state (especially during the winter months when several subspecies may be present) we can do no more than apply the very general name Dark-eyed Junco to all birds sighted. To attempt subspecific identification without birds in-hand is a fruitless and incorrect effort.

Jon E. DeVore, Apt. A-5, 1510 Huntington Dr., Murfreesboro 37130.

Corrections: Round Table Note "Nesting of Tree Swallows in Cumberland County" (West, *The Migrant,* 44:95, 1973) should begin as follows: On 30 April 1972 . . .

Table 1 (Pitts, *The Migrant,* 44:90, 1973) reads No Nests for the Great Blue Heron, Great Egret and Little Blue Heron. It should read No. Nests for all three species.

BOOK REVIEW

BIRD MIGRATIONS, ECOLOGICAL AND PHYSIOLOGICAL FACTORS. Edited by B. E. Bykhovskii. John Wiley and Sons. New York, 1973: 298 pp., numerous figures and tables. Translated from Russian by E. D. Gordan. $31.50.

This is a very technical, hardback book. The principal effort of this work is the clarification of the patterns governing the seasonal distribution of various species of birds. It is a compilation of migration data collected in a massive trapping and banding program operated along the Baltic Sea in 1957-1967. From the program, information was obtained on the subsequent location of 11,283 birds out of the 403,965 banded, belonging to 142 species. Recoveries of banded birds are marked on 42 maps, showing the direction and length of distance covered in flight. Also, an analysis was made of data on banding and on birds caught, with elucidation of intrapopulation and interpopulation dissimilarities in migratory distribution, in both time and space.

Features of the development of certain components of the autumn migratory state in nature, such as the development of migratory diurnal rhythms and the correlation between the intensity of migratory and feeding behavior were studied in several of the more common species of that area. The adaptive significance and possible path of evolution of these components are discussed.

The migration of three species of swallows—House Martins, Barn Swallows, and Bank Swallows—is covered in much detail.

Energy metabolism during flight of certain Passerine species is also discussed.

The main handicap of this book is its cost. Yet, Bird Migration will be a valuable reference work for any serious student of birds.

Gary O. Wallace

The spring migration season report was not available for the June issue of *The Migrant*. It will be placed in a later issue of *The Migrant* when it becomes available.

PREPARATION OF COPY FOR PUBLICATION

The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

MATERIAL: The subject matter should relate to some phase of Tennessee Ornithology. It should be original, factual, concise, scientifically accurate, and not submitted for publication elsewhere.

TITLE: The title should be concise, specific, and descriptive.

STYLE: Recent issues of THE MIGRANT should be used as a guide in the preparation of manuscripts. Where more detail is needed reference should be made to the *Style Manual for Biological Journals* available from the American Institute of Biological Sciences, 3900 Wisconsin Avenue N. W., Washington, D. C. 20016.

COPY: Manuscripts should be typed double spaced on 8½ x 11" paper with adequate margins, for editorial notations, and should contain only entries intended for setting in type, except the serial page number. Tabular data should be entered on separate sheets with appropriate title and column headings. Photographs intended for reproduction should be sharp with good contrast on glossy white paper in black and white (not in color). Instructions to the editors should be given on a separate sheet. Weights and measurements should be in metric units. Dating should be in "continental" form (e.g., 7 March 1968).

NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and ROUND TABLE NOTES, and should conform to the A.O.U. Check-list 5th edition, 1957. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

BIBLIOGRAPHY: When there are more than five references in an article, they should be placed at the end of the article, otherwise they should be appropriately included in the text.

SUMMARY: Articles of five or more pages in length should be summarized briefly, drawing attention to the main conclusions resulting from the work performed.

IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

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BIRDS

THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

EPT. 1974
OL. 45, NO. 3

SMITHSONIAN
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THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY
FIRST PUBLISHED, JUNE 1930

PUBLISHED BY
THE TENNESSEE ORNITHOLOGICAL SOCIETY
Founded at Nashville, Tenn., 7 October 1915
A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 45 SEPTEMBER 1974 NO. 3

FALL 1973 TELEVISION TOWER CASUALTIES IN NASHVILLE

KATHERINE A. GOODPASTURE

The 1973 television tower casualty list of 165 birds from WSM and WSIX, Nashville, Tennessee is the shortest since systematic collections during September and October have been kept. In 1967, 349 casualties were collected (Laskey, *Migrant,* 39:25-26, 1968); there were 411 in 1961 (Laskey, *Migrant,* 33:7-8, 1962). The maximum collection was 5,734 in 1968 (Laskey, *Migrant,* 40:25-27, 1969.

In 1973 search for casualties was made early each morning at both WSM and WSIX towers 1 September through 31 October with the exception of three days (29 Sept., 20 and 26 Oct.) at WSIX. Two birds from WSM were added 6 November. Table I presents a complete record of collected casualties by species, date and tower. The total from WSIX was 109 of 35 species. Casualties at WSM numbered only 56 of 22 species. Combined species total stands at 42.

The weather for September and October was "even tempered" with mild fronts moving with minimum disturbance. Mr. Paul New kindly gave me the following notes from the U. S. Weather Bureau. Only two movements could be described as passing fronts. A cold front passed through Nashville at 18:00 on 17 September with a north wind at 25-30 mph accompanied by low clouds and light rain followed by clearing about 2:00 on 18 September. Four casualties were picked up on the morning of 18 September. On 16 October a dry cold front passed at 7:00 with north wind at 15 mph and gusts up to 20 mph with clearing at 13:00. There was one casualty on 16 October and two on 17 October.

A total of 40 casualties were picked up 7 September. Rain in the afternoon of 6 September was associated with fog, low clouds and light rain on the morning of 7 September. Forty-nine casualties (47 at WSIX), the highest daily count for the season, were picked up 6 October. The weather was clear on the night of 5-6 October. Maybe the fall migrants moved in as even a flow as the weather.

Michael Bierly, coordinator for collections at WSIX, notes that during the collection period WSIX was erecting a new tower beside the operating one—the new to eventually supplant the old. Erection proceeded gradually with the

TABLE I

TELEVISION TOWER CASUALTIES, FALL 1973, NASHVILLE, TENNESSEE

Numbers in ( ) indicate birds collected that day. Underlined numbers indicate birds collected at WSIX, not underlined collected at WSM.
Asterisk * indicates an obviously old specimen.

SPECIES	WSM	WSIX	TOTAL	DATES
Pied-billed Grebe	2	0	2	Sept. 7 (2)
Great Bl. Heron	0	1	1	Oct. 6 (1)
Virginia Rail	2	0	2	Sept. 7 (1); 13 (1)
Rail sp.	0	1	1	Sept. 23 (1)
Mourning Dove	0	3	3	Sept. 7 (1) ; 30 (1); Oct. 6 (1)
Yel-billed Cuckoo	1	1	2	Oct. 6 (1); 14 (1)
Blk-billed Cuckoo	1	0	1	Sept. 17 (1)
Common Flicker	0	1	1	Oct. 15 (1)
Least Flycatcher	0	1	1	Sept. 11 (1)
Mockingbird	1	0	1	Sept. 19 (1)
Gray Catbird	0	6	6	Oct. 1 (1); 6 (4); 28 (1)*
Wood Thrush	0	2	2	Sept. 18 (1); Oct. 7 (1)
Swainson's Thrush	0	1	1	Oct. 6 (1)
Veery	1	0	1	Sept. 7 (1)
Thrush sp.	0	4	4	Oct. 1 (1); 6 (1); 14 (1)*; 28 (1)
Golden-cr. Kinglet	1	0	1	Oct. 14 (1)
Red-eyed Verio	3	5	8	Sept. 7 (2, 4); 11 (1); 12 (1)
Philadelphia Vireo	1	1	2	Oct. 6 (1); 8 (1)
Black-and-white Warbler	7	7	14	Sept. 6 (2); 7 (3, 2); 8 (1); 16 (1)*; 30 (1); Oct. 1 (1); 5 (1); 6 (2)
Tennessee Warbler	4	14	18	Sept. 7 (1, 2); 11 (1); 24 (1)
Magnolia Warbler	3	8	11	Sept. 8 (1); 9 (1); 16 (1); 18 (2) Oct. 5 (1); 6 (5)
Black-tho. Blue Warbler	0	1	1	Sept. 20 (1)
Yellow-rumped Warbler	0	1	1	Oct. 28 (1)
Black-tho. Green Warbler	2	4	6	Oct. 5 (1); 6 (4); 7 (1)
Blackburian Warbler	1	1	2	Sept. 7 (1, 1)
Chestnut-sided Warbler	0	2	2	Sept. 11 (1); Oct. 6 (1)
Palm Warbler	0	4	4	Oct. 6 (3); 15 (1)
Ovenbird	2	10	12	Sept. 7 (1, 1); 24 (1)*; Oct. 5 (1); Oct. 6 (6); 14 (1); 16 (1)
Northern Waterthrush	2	4	6	Sept. 7 (1, 2); 8 (1, 1); Oct. 6 (1)
Kentucky Warbler	2	2	4	Sept. 7 (2, 1); Oct. 3 (1)*
Mourning Warbler	0	1	1	Sept. 7 (1)
Common Yellowthroat	3	1	4	Oct. 7 (1); 8 (1); 14 (1); 21 (1)
Yellow-br. Chat	11	4	15	Sept. 7 (7, 3); 8 (1); 9 (2); 10 (1)*; 11 (1)
American Redstart	0	1	1	Oct. 6 (1)
Warbler species	0	1	1	Oct. 14 (1)*
Northern Oriole	1	0	1	Sept. 13 (1)
Scarlet Tanager	1	1	2	Oct. 6 (1); 8 (1)
Rose-br. Grosbeak	1	2	3	Sept. 18 (1); Oct. 6 (1); 15 (1)
Indigo Bunting	0	3	3	Oct. 6 (3)
Savannah Sparrow	0	2	2	Oct. 6 (2)
Vesper Sparrow	0	1	1	Oct. 27 (1)
Field Sparrow	1	0	1	Nov. 6 (1)
White-thro. Sparrow	0	1	1	Oct. 30 (1)
Lincoln's Sparrow	0	3	3	Oct. 6 (1); 17 (1); 23 (1)
Swamp Sparrow	0	1	1	Oct. 15 (1)
Unidentified	2	2	4	Oct. 7 (2); 14 (1); Nov. 6 (1)*
TOTAL 42	56	109	165	

addition of guy wires from the low level upward thus increasing the hazard to night migrants as long as both towers stand. Upon completion the new tower including its thin antennae will stand 1.6′ higher than the old but the body of the new tower will be shorter than the old tower and will be supported by fewer cables which in turn will have a slightly greater diameter than the old cables. At WSM the tower had been recently painted with bright orange paint and the guy lines with aluminum paint. It would be difficult to conclude that any of these factors influenced the light casualty list of 1973.

No new species was added to the master list. The Great Blue Heron, 6 October WSIX, was the second of that species to be collected, the first having fallen at WSIX 30 September 1959. A Virginia Rail picked up 7 September was 3 days earlier than the early fall date for the species.

We are again grateful for the continued interest of Amelia R. Laskey in tower casualty problems, to Mr. Paul New, of the U. S. Weather Bureau, and to the personnel at both WSM and WSIX towers for valuable help they have given. Regular assistance for scheduled collection at the towers was given by Frances Abernathy, Ann Arnett, Sue Bell, Michael Bierly, Clara Fentress, William Finch, Katherine Goodpasture, Portia MacMillan, Ann Nichols, Marjorie Patrick, Virginia Price, and Ann Tarbell.

3407 Hopkins Lane, Nashville 37215.

BOOK REVIEW

BIRDS OF AUSTRALIA. 1974. By Michael Morcombe. Charles Scribner's Sons, New York, N. Y. 80 pp. 97 photos. $7.95.—This book is a collection of the author's best photographs made over a twelve-year period of time. It does not cover all bird life in Australia but only has representative species of the major classes of bird life in the various regions of Australia.

The book is primarily a book of bird photographs with just enough text included to justify the pictures. However, the nearly 100 color photos are outstanding. They are printed on glossy paper and are mostly clear and sharp. Most important, perhaps, is that they portray birds in action: birds in flight, landing, feeding, and nest building. Their wing positions, color patterns, plumages, and total beauty are emphasized by the high speed electronic flash equipment that gave the author an action stopping 1/7000 second flash. A study of the photographs and their captions alone would make the book worthwhile.

The main topics covered by the author include: Birds of the Coastal Rainforest; Honeyeaters; Australian Robins; Birds of the Dry Inland; Parrots; Birds of Prey; Fairy Wrens; Birds of Rivers, Swamps, and Tropical Grasslands; Birds of Ocean, Seashore, and Lakes; Birds of Forests and Woodlands; Techniques for Bird Photography.

There is a brief introduction to the bird groups included in each chapter and captions which tell the story of the pictured birds. An information section is provided at the end of the book which includes a chart of Australian Bird Families and information and maps on bird distribution. There are ten chapters. No references are cited in the book but a short bibliography is included. There is an index of birds mentioned in the text but not of subject matter.

Gary O. Wallace

MOCKINGBIRD MOVEMENTS DURING SUMMER

LEE R. HERNDON

The Mockingbird (*Mimus polyglottos*) is known to migrate short distances, however, over most of its breeding range it is considered a permanent resident. In northeast Tennessee it may be found in summer up to an elevation of 3,200 feet. The elevation under study in southwestern Elizabethton is about 1,600 feet. The area in which the Mockingbirds were trapped or netted was in my back yard. The area was about 50 ft. x 120 ft. with our ranch type house along one side, a multiflora rose (*Rosa multiflora*) hedge on the opposite side, with an open golf course fairway immediately behind the hedge. The ends of the area were bordered by lawns, in which a few young fruit trees were established, and of approximately the same depth as the one under consideration. A garden plot occupied an area of about 20 ft. x 60 ft. On the side adjacent to the house and about midway the garden plot and about 10 ft. from it, was a pin oak (*Quercus palustris*) about 18 ft. tall, under which was a drip type bird bath, consisting of a garbage can lid at ground level, inside a cylinder of wire commonly used for reenforcing concrete and about 5 ft. in height. A garden hose attached near the top of the wire cylinder provided a continuous water drip. A patio 20 ft. in length extended 16 ft. toward the garden and a walk 4 ft. wide, consisting of large flat stones surrounded by marble chips extended to the garden and was flanked on both sides by two rows of hybrid tea roses. The remainder of the area was in lawn, in which some small fruit trees were set out in the spring of 1959. Several small shrubs and a small grape arbor were near the house.

In 1969 the garden was planted with vegetables and some sweet corn and sunflowers. A mist net was placed near the end of the garden near the center of the yard and a double S trap placed between the garden and the hedge. The mist net was kept furled when unattended. The double S trap was baited with cracked corn and chick scratch feed. The gathering cage was removed when not attended, so that birds entering the trap could leave through the opening at which the gathering cage was placed, when in operation.

During the periods, 17 June to 3 July; 25 July to 14 August and 25 August to 6 September, I was incapacitated or away from home, and the mist net and trap were inoperative during these periods. All Mockingbirds banded during 1969 (24) were netted or trapped between 7 June and 2 October, except three nestlings, which were banded on 12 June. The net and trap were not in operation 46 days during this period. The first Mockingbird banded (band No. 61-193707) 7 June 1969 was recaptured 9-14-69, 10-14-69 and 10-16-70. Another Mockingbird banded 7-14-69 was recaptured 9-15-69, 6-2-70 and 1-3-71 and was brought in to me on 4-13-71, dead of a back injury, by a next door neighbor boy. This bird, as were all the other birds banded during this season were birds of the year except three which were adult birds.

During 1970 the area was essentially the same except the garden was plowed in the spring and a few tomato plants were set out adjacent to the multiflora rose hedge. We were away from home from 5 June through 19 July, 44 days, two days less than in 1969. Upon our return home we found the garden area grown up with volunteer sunflower plants. Many of the weaker plants were removed and the remainder permitted to grow.

Immediately after our return the double S trap was placed on the border between the end of the sunflower patch and the lawn and a mist net placed as in 1969, on the lawn about 6 ft. from the double S trap and very near the gathering cage for the double S trap.

A 4-celled trap was placed along side the double S trap. Both traps were baited with cracked corn and chick scratch feed, neither of which was attractive to the Mockingbirds but was attractive to Song Sparrows (*Melospiza melodia*) and Cardinals (*Cardinalis cardinalis*). Mockingbirds took a special delight in harassing these birds when they were inside the trap or gathering cage.

On 22 July, when I was to be away for a few hours, the net was furled, the gathering cage placed on end beside the double S trap, thus leaving the trap open. The 4-celled trap was placed on top of the double S trap and left set but unbaited. Upon my return, a Mockingbird was caught in one of the cells of the 4-celled trap. For the remainder of the season the 4-celled trap was kept set and unbaited, on top of the double S trap, but the latter was baited and the gathering cage in the set position. During the period 22 July through 23 September 66 of the 69 Mockingbirds banded during the calendar year 1970, were captured in the unbaited 4-celled trap resting on top of the double S trap.

The period of greatest movement was between 25 August and 8 September. During this 14 day period 44 of the 69 birds banded during 1970, were banded constituting 64 percent of the Mockingbirds banded during this year. Only ten of these birds were retrapped and three of these were recaptured twice. The longest elapsed time between banding and recapture was 66 days. This could have been a locally reared bird since it was first captured 25 July, was a bird of the year and repeated 26 September 1970. Only two of these repeats were taken after the last bird was banded 23 September. Fifty-eight of the 69 birds, or 82.6 percent were birds of the year, which included two locally hatched birds, which were captured by hand, on 10 August.

At no time did there appear to be more than four or five Mockingbirds in the area at any one time. The maximum number of captures in one day was eight on 31 August and five on 29 August. Almost 25 percent of the birds (17) were captured during the last three days of August.

There has been no return of any of the Mockingbirds banded during 1970 nor during the succeeding four summer seasons. The small number of retraps indicates that the birds were migrating and remained in the area a relatively short time.

Such a small area certainly would not support such a large population of Mockingbirds, even if they would torelate each other with such a high density.

Bandings of Mockingbirds by months for the years 1969 through 1972 are presented in Table I.

TABLE I

Year	*June*	*July*	*August*	*September*	*October*	*Totals*
1969	8	5	3	7	1	24
1970	1	8	37	23	—	69
1971	—	—	12	4	2	18
1972	—	—	1	7	2	10
TOTALS	9	13	53	41	5	121

After the 1970 season, the multiflora rose hedge was removed and replaced by a chain-link fence. The area has not been as attractive to Mockingbirds since removal of the hedge, which provided a refuge and food supply particularly in winter.

Three annual area counts are made which give some idea of Mockingbird seasonal populations. A spring count is made about 1 May; a fall count about 1 October and the Christmas count. Table II presents these counts for the years 1969 through 1973.

TABLE II

Year	1969	1970	1971	1972	1973	*Average*
SPRING	78	77	86	62	65	73.6
FALL	86	77	74	40	63	68.0
CHRISTMAS	18	69	46	21	26	36.0

These counts are not comparable. Although the area for spring and fall counts are the same, the birds are more conspicuous in the spring because the birds are singing. In the fall the difference may be compensated for by the birds of the year. However, the data of Table I indicates that the birds of the year may have moved out of the area during August and September, leaving predominantly the resident population.

The Christmas counts are low because the area is limited to a circle of 7.5 mile radius, while spring and fall counts may extend to a circle of 25 mile radius.

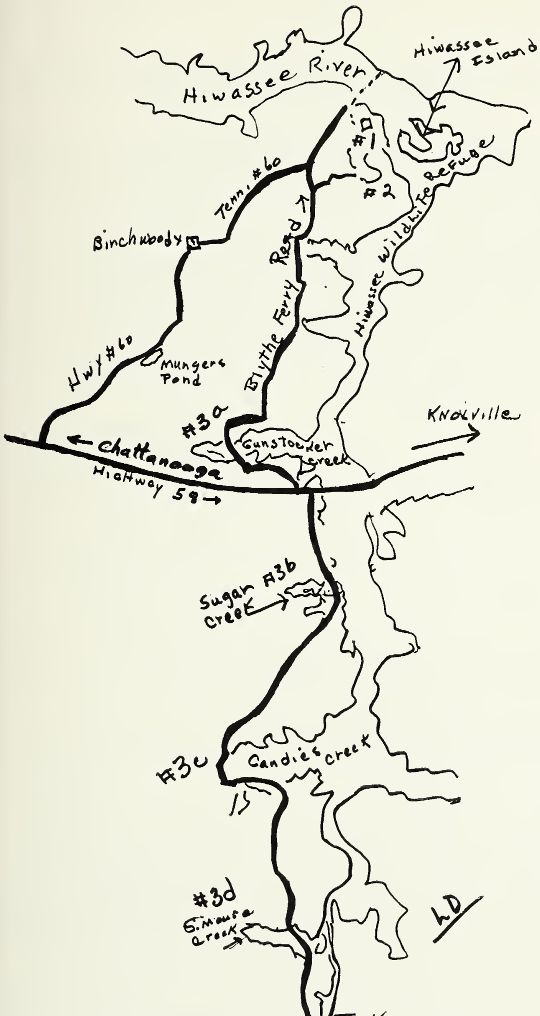
The Mockingbird population is fairly stable in this area except during August and September when relatively large numbers, mostly of birds of the year, pass through and are present for only short periods.

673 Golf Course Drive, Elizabethton 37643.

BIRD FINDING IN TENNESSEE

BIRDING IN THE CHATTANOOGA-HIWASSEE RIVER AREA

LIL DUBKE


Hiwassee River
Hiwassee Island
#1
#2
Hiwassee Wildlife Refuge
Tenn. #60
Birchwood
Blythe Ferry Road
Hwy #60
Mungers Pond
#3a
Gunstocker creek
Knoxville
Chattanooga
Highway 58
Sugar Creek
#3b
#3c
Candie's creek
#3d
S. Mouse creek
LD
Chattanooga
To Knoxville Highway #11

One of the best areas for observing shorebirds during migration is along the lower Hiwassee River Area. During the latter part of July, the months of August, September and early October, a great variety can be seen (depending on the water level of Chickamauga Lake) feeding in the mud and shallow water along the extensive shoreline.

In the winter months, there is an abundance of wintering waterfowl. If at all possible, obtain a TVA Recreation map of Chickamauga Lake. This map can be easily followed to the "Hot Spots"!

Area 1: BLYTHE FERRY AND BLUFF—From Chattanooga, drive north on Highway 58 approximately 29 miles, turn left on Highway 60. There is a small private lake approximately 2.07 miles—stop and toot your horn for the Bufflehead to pop up. This is wintering quarters for 20 to 50 Buffleheads. Travel approximately 3 miles to BLYTHE FERRY, park and wait for the ferry. Wilford Caraway is usually present, and during the winter months, may be able to point out a favorite perching spot of the Bald Eagle—or perhaps a Golden. A walk up the side of the bluff to the top is worth the effort. Be sure to take your scope to view the waterfowl feeding and resting on Hiwassee Island Wildlife Refuge. Thirty to 60 Great Blue Herons use this as their feeding and resting grounds.

Area 2: HIWASSEE HUNTING AREA—From the ferry, return 1.0 miles and turn on paved road to left (first paved road to left), continue to first dirt road to left, and turn left, continue to end of road, turn left, if gate is open to Hunting Area, park car after entering, and slowly approach the slough, or drive slowly through the area. Canada Geese, Blue Geese, even a White-Fronted Goose and Brant have been recorded, as well as a good variety of ducks. Wintering land birds are in the surrounding fields and hedgerows. Dickcissel sing lustily from perches during the months of May and June. Almost any visit could produce a Red-tailed Hawk. Bobolinks swoop through during migration in the spring.

Area 3: CREEK AREAS—Return to black top road (Blythe Ferry—Charleston Road) turn left and continue to Tennessee Highway 58 (you will pass Gunstocker Creek (3a), a brief pause may be all that is necessary at this spot—usually not very productive, but pays to check. Turn left on 58, continue to next paved road to the right. This is Lower River Road—turn right, continue to Sugar Creek (3b). Many fine shorebirds have been found at this spot. Continuing down Lower River Road, Candies Creek (3c), is approximately 2 miles. It is always good to check this spot. Next is the "Famous" South Mouse Creek (3d). When the water level is lowered, the finest mud-flats occur here. Just about any shorebird is a possibility during migration!

It is always an exciting adventure to explore the Hiwassee River Area! For further information contact Ken and Lil Dubke, Route 1, Box 134-D, Ooltewah, Tenn. 37363 or call 238-4969.

* * * * * * * *

ROUND TABLE NOTES

WESTERN GREBE FOUND AT WOODS RESERVOIR—On a routine field trip to Woods Reservoir 18 November 1973, the writers observed a Western Grebe (*Aechmophorus occidentalis*) as it leisurely swam with a group of Horned Grebes (*Podiceps auritus*) in the open water. The bird was observed at 100 yards, under excellent light conditions. It was readily apparent that it was a Western Grebe because of its larger size, extremely long slender swan-like neck, and light yellow bill. These features were pointed out to other members of the group: Frank Hixon, Jan Hawthorne, Bradley Cansler, Gertrude Fleming, and Mr. and Mrs. Frank Baisden.

The word quickly spread and many competent observers had an opportunity to view the Western Grebe.

It was last observed in the area on 10 February 1974, by Lil Dubke and members of the new chapter of the TOS, Highland Rim. The Western Grebe is rarely found away from its normal wintering area in the west.

KENNETH H. AND LILLIAN H. DUBKE, Rt. 1, Box 134-D, Ooltewah 37363.

GOSHAWK IN LAND BETWEEN THE LAKES—The morning of 20 December 1972 I was observing wildlife around an old log barn or shed in Land Between the Lakes. The barn is located on a short ridge running northward down into a creek bottom and the north bay of Bards Lake, 7 miles northwest of Dover. On the sides of the ridge are heavily wooded ravines also leading northward down into the creek bottom and Bards Lake. On the ridge to the south of the barn is forest and to the north a small field of tall grass.

The sky was clear that morning, and there was little wind. Bobwhite Quail (*Colinus virginianus*) had often called from several places around the barn, and occasionally I heard and saw quail in a briar patch along the north edge of the barn. At about 09:00 (CST) as I stood just within the south door of the barn, a hawk glided about 7 feet high just in front of me. It landed about 15 feet high in the middle of a tree approximately 50 feet to the southwest. I was able to observe it in open view with 8 x 30 binoculars for a minute or two. Having collected an immature Goshawk (*Accipiter gentilis*) in Michigan, and having handled specimens of adult Goshawks and other eastern hawks, I immediately saw that the bird was an adult Goshawk. I noted the distinct light superciliary stripes demarcated by the black crown and auriculars, the blue-gray back and wings, and the light underparts with faint gray barring and streaking. Immature Goshawks have brown upperparts and thick brown streaks on the breast and abdomen.

Other accipiters that occur in this area are the Cooper's Hawk (*Accipiter cooperii*) and the Sharp-shinned Hawk (*Accipiter striatus*). The hawk was obviously not a Sharp-shinned Hawk, being nearly as large as a Red-tailed Hawk (*Buteo jamaicensis*). Unlike the Goshawk the adult Cooper's Hawk, as well as the adult Sharp-shinned Hawk, does not have distinct superciliary stripes demarcated by black, and has reddish-brown barring on the breast. The male Marsh Hawk (*Circus cyaneus*) has the same general coloration as the adult Goshawk, but has black wing tips and lacks barring on the breast and the black and white pattern on the head. Also the Marsh Hawk would not be expected to occur in such wooded habitats, although it probably frequents the cultivated and abandoned fields in the creek bottoms throughout Land Between the Lakes.

After a few minutes the bird flew low along the west edge of the barn toward the grassy field to the north, after which I could no longer observe it. About 5 minutes later, while still in the barn, I heard a commotion just to the north, including brief squealing and also the sound of much movement in brush. It's possible that the Goshawk captured one of the quail that I had seen earlier, although the commotion could have been an agonistic encounter between quail themselves. The coincidence of the commotion with the hawk's presence, however, indicates that it was responsible, since I heard no such commotion at any other time.

Although I frequented the same area on the following two days, I did not again see a Goshawk or any other accipiter. A Goshawk in this area is a rare occurrence. Apparently this year has been an invasion year for this northern species, with many reports from the eastern states including several in Tennessee (Fred Alsop, III, pers. comm.).

References used: Peterson, R. T. 1947. *A Field Guide to the Birds*. Houghton Mifflin Co., Boston; Robbins, C. S., B. Bruun, H. S. Zim, and A. Singer. 1966. *Birds of North America*. Golden Press, Inc., New York; Roberts, R. T. 1955. *A Manual for the Identification of the Birds of Minnesota and Neighboring States*. Univ. of Minnesota Press, Minneapolis.

ROGER L. KROODSMA, Dept. of Biology, Union University, Jackson 38301.

GOSHAWK IN TROUSDALE COUNTY—On Sunday morning 18 March 1973 my wife and I observed an adult Goshawk (*Accipiter gentilis*) in Trousdale County. In view of the relatively few sightings of this species in middle Tennessee, and since this is the first record for the above mentioned county, the following details are submitted regarding the observation: Time—9:30 to 9:37 a.m.; Weather—sky clear, temperature 45 degrees Fahrenheit, wind from the west-northwest (a cold front had moved through the area the night before and temperatures dropped into the twenties after several weeks of readings in the sixties); Exact Location of Sighting—seven miles north of Lebanon, Tennessee at a point approximately three-hundred yards north of the Hunters Point Bridge (Hwy. 10 crossing the Cumberland River) in the Hunters Point Refuge Area, Trousdale County; Characteristics—the bird was startled from a deciduous-cedar thicket, whereupon it flew out into an open area and began a slow circular glide. The accipiter wing profile and long barred tail were easily noticeable at this time with the naked eye. Two Common Crows (*Corvus brachyrhyncos*) almost immediately made several passes at the bird and it was then that the large size of this accipiter was readily noticed (the Goshawk is larger than the Crow, whereas the Coopers Hawk (*Accipiter cooperii*) is smaller). The crows soon gave up their sport after the bird gave chase to one of their number. I watched this exhibition for several minutes through 7 x 50 Bauch and Lomb binoculars and could distinguish the dark eye stripe, find dark markings on the light gray underparts and the long tail. When last seen the bird was gliding back into the forested area of the refuge boundary; Observers—Jon E. and Nancy DeVore.

JON E. DEVORE, Apt. A-5, 1510 Huntington Dr., Murfreesboro 37130.

SHARP-SHINNED HAWKS NESTING AT SEWANEE—Although I had observed a pair of Sharp-shinned Hawks (*Accipiter striatus*) several times during July 1953, below the bluff at St. Mary's School, Sewanee, no nest could then be located. On 12 May 1973, Steve Harris, a student at The University of the South, found a nest of this hawk near the Sherwood Road opposite St. Mary's School, after he had heard the male giving his warning territorial cackle. The female was sitting on the nest. This nest was very typical of the species in Massachusetts, as described by A. C. Bent, *Life Histories of North American Birds of Prey,* part one, Dover. It was placed 18 feet up, against the trunk of a medium-sized white pine (*Pinus strobus*), located in a dense planting of the same tree species. The nest was about one foot in diameter, made of small twigs, and shallow from top to bottom. It contained 3 eggs, whitish blotched with brown spots. Two of the birds' butcher blocks, containing remains of small birds, and a used nest were located a short distance from the active nest. On 15 May, the male again gave his warning cackle, when the nest was approached. The female was reluctant to leave the nest. Five eggs were present. On 25 May, Margaret Ringland, a student; my wife, Jean; my son, Clay; and I joined Mr. Harris in the nest visit. As usual, the male warned and the female was reluctant to leave. Her square-tipped tail could be seen protruding from the nest. A rap with a stick on the tree made her depart for a short distance. Six eggs were found to be present. Miss Ringland, Clay and I assumed the nest observations after this date, when Mr. Harris returned home in Texas. On 17 June (24 days from the last egg-laying), four eggs hatched. On 1 July, wing and tail feathers of the 4 young were starting to erupt. There were no remains of the two unhatched eggs and the parents were not at the nest.

On each of the many visits to the nest, before and after the eggs hatched, potential songbird prey could be seen and heard in the close vicinity of the nest. Towhees, Carolina Wrens (*Thryothorus ludoricianus*), Tufted Titmice (*Paris bicolor*), and Hooded Warblers (*Wilsonia citrina*) were recorded. Frank and John Craighead, in their *Hawks in the Hand* (Houghton Mifflin Co.), pp. 158-160, give a similar account of Sharp-shinned Hawks not molesting towhees and Whip-poor-wills (*Caprimulgus vociferus*) in the immediate vicinity of the hawk's nest, but catching prey afar.

On 3 July, wing and tail feathers were growing, but down covered the rest of their bodies. Two were small and obviously males and two much larger females. The parents were absent. One male and one female were removed from the nest, photographed, and kept in captivity for further study. I kept the male and Mr. Harris was sent the female. In two weeks, the captive young were fully-feathered, would eat chicken meat from one's fingers and could fly a short distance. My male liked to hunt and eat June beetles and other insects in our pasture, pursuing them on foot, before it could fly well. Even after fully feathered, the male was not as large as a female American Kestrel (*Falco sparverius*). Shortly after maturing, the male escaped, when being removed from its pen and never returned. Mr. Harris' female also escaped, a few weeks later.

The Sharp-shinned Hawk is usually fairly common in migration in Tennessee, but is a rare permanent resident in any part of the state. The majority breed throughout the forested parts of Canada and the northern United States near Canada. Henry E. Parmer's *Birds of the Nashville Area* (second edition), lists it as a rare permanent resident in that region, with several nesting records at Basin Springs and Craggie Hope. Arthur Stupka's *Notes on the Birds of Great Smoky Mountains National Park* lists 4 June records, but no nesting records. At Sewanee, the white pine plantations for nesting sites, the abundance of small birds for prey, the great amount of wild, forested areas, and the cool mountain air are ideal for nesting Sharp-shinned Hawks. They have probably nested here for years.

HARRY C. YEATMAN, Biology Department, University of the South, Sewanee 37375.

AMERICAN AVOCETS AND SHORT-BILLED DOWITCHERS IN CARTER COUNTY—On the morning of 11 August 1973 at about 10:30 EDT while birding along Watauga River, I observed two very unusual looking birds for our area. They were in a small shallow bay where the river makes a sharp turn. They were at a distance of some 300 to 400 yards with an embankment obscuring much of the birds bodies. I decided to drive around to the other side of the river to get a closer look. Arriving at this better viewpoint I was pleasantly surprised to find two American Avocets (*Recurvirostra americana*) standing on the muddy edge of the far bank of the river some 100 feet away. They were feeding with seven Killdeer (*Charadrius vociferus*) and one Spotted Sandpiper (*Actitis macularia*). The two birds had extremely long, bluish legs with webbed feet. The overall body was white with black wings and a long horizontal white stripe in the center of the darker wings. The long neck was a light-brown, almost pinkish looking, fading into almost all "dirty" white color on the head. The long, thin, dark, upturned bill was unmistakeable. The birds were very casually probing and feeding in the soft mud.

During my observation the birds gave a single-noted "kleep" call as described by Godfrey in *Birds Of Canada* several different times. The birds were observed with a pair of 7 x 35 binoculars and a Bausch and Lomb telescope. The weather was clear on 11 August, but there had been a big storm the night before with very high southwesterly winds accompanied with heavy rain.

After making on the spot notes and watching the birds for some thirty minutes, I decided to drive home and start our local TOS chapter "rare bird alert." After contacting several people I returned to the spot to meet Fred Behrend for the purpose of making photographs. While there several members of our chapter came by to see the birds. The avocets were under constant observation from 11:45 to 15:30 EDT and were also seen about 17:00 that afternoon. A check was made the next day but the birds could not be found. This was the first reported American Avocet for Carter County, with the only other upper East Tennessee report coming from Austin Springs in Washington County on 18 Sept., 1967 by Charles Smith and Wallace Coffey, *The Migrant*, Vol. 38(4):101.

On 25 August, John W. Gray and I were again checking the above described area. The river was down and along the muddy edge we found three Short-billed Dowitchers (*Limnodromus griseus*) feeding with several Killdeer. The first thing we noticed was the long bill and the short "bobbing" motion of the head while feeding. Two of the birds were changing to the greyish color of winter plumage, while the other bird was very reddish-brown in color, equivalent to spring plumage. All three birds had very light colored greenish legs. The white on the rump and upper parts of the back could be seen only when the birds were preening. The birds were not flushed, since dowitchers are so uncommon for our area, there would probably be several people interested in seeing the birds. We later returned with Dr. Gary O. Wallace and other members of the Elizabethton TOS and watched the birds for some 30 to 45 minutes.

There have been several reports of Short-billed Dowitchers for upper East Tennessee, but none from Carter County. Therefore both of the above mentioned birds were "firsts" for Carter County and both coming from the same location within two weeks of each other.

GLEN D. ELLER, Route #3, Grandview Terrace, Elizabethton 37643.

LARGEMOUTH BASS CAUGHT BY BARRED OWL—The Barred Owl (*Strix varia*) is seldom seen during daylight hours and even less frequently observed feeding during periods of strong light. Twilight appears to be the most active time for the Barred Owl. It is therefore of particular interest when a Barred Owl is observed making a catch in broad daylight.

On 12 June 1973, Messrs. John N. Stockdale and Jerry B. Armstrong, both employees of Tennessee National Wildlife Refuge, observed a Barred Owl in the vicinity of Morgan Creek near the Interstate 40 bridge which crosses the Tennessee River on the Tennessee National Wildlife Refuge. The owl was observed to swoop low over the water and catch a largemouth bass in the shallows with a single foot. The weight of the bass was estimated at 1½ pounds.

The Barred Owl then proceeded to fly to a nearby tree and perched on a limb. The fish was definitely alive when caught and seen to thrash about when in the grasp of the owl's talons. The owl pecked at the fish several times while perched on the limb and then flew off after several moments.

Bent's *Life Histories of North American Birds of Prey* describes the diet of the Barred Owl as quite varied but primarily made up of mice and small rodents. However, fish is quite rare in his food intake which makes this daylight capture even more unique.

Leon Rhodes, Assistant Refuge Manager, Tenn. Nat. Wildlife Refuge, Box 849, Paris 38242.

JUNE RECORDS OF A BREWSTER'S WARBLER AND RED CROSSBILLS IN CUMBERLAND COUNTY, TENNESSEE—On the morning of 11 June 1973, G. Ron Austing and I (FJA) visited the extensive pine-burn bisected by Interstate 40 in eastern Cumberland County in search of a nest of one of the many Golden-winged Warblers (*Vermivora chrysoptera*) that are common summer residents there. The area is located just west of the Westel Exit on I-40 a few miles north and west of Rockwood, and is reached by exiting south on the Westel road and proceeding approximately one mile to a dirt road running west into the pine planting. The birding habitat is accessible from this dirt road which, though rutted and not maintained, was passable for automobiles in June.

The burn is perhaps 10-15 years old and is densely covered by an extensive planting of pines which have reached a height of approximately 6-8 feet. Scattered throughout are individual mature pine trees 25 plus feet tall and the dead standing snags of burned deciduous trees, minus most of their branches, of heights mostly intermediate between those of the mature pines and the planted pines. The taller pines and dead snags are often used by the Golden-winged Warblers as singing, preening, and resting perches.

We had walked the dirt access road for approximately one mile and had located 5 singing male Golden-wings, all giving their typical "*seee-buzz-buzz-buzz-buzz*" song, when the song of a Blue-winged Warbler (*V. pinus*) was heard along the road ahead. The bird was easily located as it sang from the tops of several young pines and was seen to be not a Blue-winged Warbler, but a hybrid, Brewster's Warbler (*V. chrysoptera* X *V. pinus*). The bird had a yellow forehead and crown, gray upperparts and wings, white throat and underparts, black lores with the eyeline extending thru and behind the eye, two wide yellow wingbars, and a yellowish wash on the upper breast. The song was given in two forms; the "*seee-buzz*" typical of the Blue-wing and the nesting song which is variable, consisting of a series of short notes and buzzes that change in pitch, i.e. *"tsee, tsee, tsee, tsee, tsee, tsee, buzzz-see-see-buzzz"* (A. C. Bent. 1953). *Life Histories of North American Wood Warblers.* U. S. Nat'l. Mus. Bull. 203) also given by Blue-wings on their breeding grounds (we had heard the latter song repeatedly a few days earlier while observing nesting Blue-winged Warblers near Hamilton, Ohio). At no time on the three different occasions during the morning hours that we heard this individual singing did we hear it sing the Golden-wing song that we were constantly hearing from the male Golden-wings in the adjacent territories. We were unable to follow the bird's movements when he left his singing perch (he used the same small pine and two nearby ones which were several feet taller than the surrounding ones on each of the three times we observed him) and, therefore, were unable to see if he was carrying food, or had a mate, or a nest.

I believe this to be the first reported observation of a territorial Brewster's Warbler in Tennessee.

During our slow search thru the pines I was surprised to hear the flight notes of crossbills ahead. Subsequently, we were able to detect four birds in undulating flight overhead, but too high to determine the identity of the species. Shortly, two more birds were heard and seen in flight. These were close enough to be sure they were Red Crossbills (*Loxia curvirostra*).

Within an hour of our initial contact with crossbills on the area we observed 10 Red Crossbills feeding in several of the mature pines from a distance of approximately 60 feet. This active group was comprised of at least two juvenile birds in brownish plumage heavily streaked below and seemingly equal numbers of adult males and females. While in the pines some birds were actively foraging for food, some were preening, and some males were frequently seen chasing females and other males in short, rapid circular flights which usually brought them back to the same trees they had just vacated. The flock was very vocal, not singing, but almost constantly emitting single notes which were sometimes rapidly repeated. The birds were easily approached to within 20 feet, and were seen to feed on the ground as well as in the smaller pines. We often saw and heard crossbills in twos and threes during the rest of the morning and early afternoon until we departed the area about 14:30 (CDT). It was impossible to establish if the latter were members of the single flock of 10, or if more birds were ranging the large pine-burn.

These birds most probably were individuals from the widespread southern invasion of this species during the preceding winter. After similar invasions in other states straying Red Crossbills which have lingered have bred or have been suspected of breeding (A. C. Bent. 1968. *Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows, and Allies.* U. S. Nat'l. Mus. Bull. 237). These erratic wanders are also rather erratic in their nesting, breeding most often in January and February, but there are nesting records for the species for most months of the year. Though Red Crossbills are found in East Tennessee throughout the year, no nest has been reliably reported from the State.

Dr. Fred J. Alsop, III, Dept. of Biology, East Tennessee State University, Kingsport University Center, P. O. Box 9, Kingsport 37660.

NESTING FAILURE IN A COMMON GRACKLE COLONY—The presence of large numbers of Common Grackles (*Quiscalus quiscula*) during the various bird counts indicates that this species is reproducing at a constant, if not increasing, rate. Of interest in this respect is the complete failure of a small colony of Common Grackles during the 1972 nesting season. The colony was located near a small pond of approximately ¼ acre surface area and in a nearby gully on a farm in Obion County. Thirteen nests were located in black willows (*Salix nigra*) at the margin of the pond. The willows varied in height above water varying from 2 to 10 feet. Six nests were located in a small brush covered gully approximately 100 feet uphill from the pond. These nests were located in elm (*Ulmus* sp.), ash (*Fraxinus* sp.), persimmon (*Diospyros virginiana*), oak (*Quercus* sp.), cherry (*Prunus* sp.), and sassafras (*Sassafras albidum*) at heights of 8 to 12 feet. Pasture land seeded to lespedeza (*Lespedeza striata*) and fescue (*Festuca elatior*) surround both the pond and gully. Weekly or twice-weekly visits were made to the area beginning on 1 April 1972. Nests were observed being constructed on 1 April. Eggs were first seen on 17 April when one nest contained three. Young (with natal down) were first noted 8 May.

The time and possible cause of each nest failure were recorded as evidence permitted. Four nests either fell from the supporting branches, disintegrated, or tilted at such an angle that the contents fell. Three of these nests contained eggs and one was empty at the time of destruction. Faulty construction techniques and/or breakage of supporting branches are thought to have been the cause of destruction in each case, as some damage to the nest or its supports was noted prior to the final destruction. Predators are not thought to have destroyed any of these as depredated nests were left intact. An unknown predator took the eggs from four nests; this depredation occurred between 23 April and 14 May. A Black Racer (*Coluber constrictor*) was observed removing eggs from one nest on 14 May. Two nests with eggs were deserted between 14 and 24 May. Young were removed from eight nests by unknown predators between 1 and 21 May. Young birds died in one nest, apparently following desertion by their parents or the death of the parents. One nest is listed twice in the above account as it was depredated at least twice, once while containing eggs and once while containing young.

The observed egg depredation by the Black Racer occurred at 13:30 (CDT) on 14 May. The snake was observed swimming near the margin of the pond approximately 10 feet from a nest. The snake moved directly to the nest, which was located 15 inches above the water at the base of two willow trees. The nest had lost three eggs during the previous week and at the time of the observed depredation contained only two eggs. The snake apparently broke one egg while picking it up; the egg was discarded. The second egg was picked up and swallowed, after which the snake climbed about 10 feet further up into the tree.

SUMMARY

Nineteen Common Grackle nests failed to produce any fledglings. Four nests were lost due to faulty construction; predators took eggs from four nests; predators took eggs and young from one nest; predators took young from eight nests; and, three nests were deserted.

David Pitts, Biology Dept., University of Tennessee at Martin, Martin 38237.

NORTHERN ORIOLES AT PICKWICK DAM—On 25 December 1967, a mild Christmas day, my husband and I were taking a drive along the Tennessee River below Pickwick Dam. The area is a well-kept park with the river on one side and a wild area on the other. The road is lined with a double planting of Sycamore trees. On a low drooping branch of one of the largest Sycamores we found a Northern Oriole (*Icterus galbula*) nest.

On reading that the Northern Oriole often builds in the same tree year after year, we determined to watch for this in the spring. On 18 April 1968 we observed a large number, perhaps one hundred, of Northern Orioles in the Sycamore trees, tearing the seed balls to pieces and feasting. We also saw among them fifteen or twenty Orchard Orioles (*Icterus spurius*).

Although I watched all summer for a nest, I did not find one until the leaves fell when my husband and I again found a Northern Oriole nest in the same tree, and three others in widely separated parts of the park. Since that time we have found a Northern Oriole nest each year.

On 6 May 1971 we observed an Orchard Oriole at her nest, and saw two male Northern Orioles perched in the treetops and singing. On 13 May 1972 we discovered a female Northern Oriole building her nest. I watched her closely for nine days. On 25 May the nest had been destroyed. On corresponding with David Patterson I learned that he considered a Northern Oriole nest this far south noteworthy. On 30 May 1973 my husband and I spotted a Northern Oriole building a nest. On 8 July David, Gloria, and Mike Patterson met us at Pickwick and we took them to see our birds. As we approached the nesting site the male bird flew and all of us saw his glorious color. He did not choose to return while we were there. We did observe the female on the nest, thus confirming the fact that the Northern Oriole does indeed nest at Pickwick Dam, Tennessee.

Ellen Warriner, 205 Linden Street, Corinth, Mississippi 38834.

REPORT ON BLACK-HEADED GROSBEAK, MURFREESBORO—On 30 December 1973, Mrs. Preston Edwards called me about a bird which she identified as some sort of a grosbeak. She gave a fairly good but restrained color description which suggested tentative identification. I made four trips to her house that day failing to see the bird which would come back as soon as I left. Only the fact that I was expecting participants in our Christmas count of the day before at my home on that day kept me from staying until I saw the bird. The next morning, 31 December, I had better luck and saw the bird at a distance of less than 20 feet when it landed on a picnic table. It was a very handsome bird with a breast of glowing burnt orange, golden in the center. The shoulders were orange and brownish-black, the wings also brownish black with a pattern of white feathers. The head was not solid black but striped in the dark almost black-brown. The cheeks were grayish.

Fairly timid at first the bird would invariably fly to a bare branch on one of the large hackberry or wild cherry trees in the fence row at the back of the lot and then to the table which was usually covered with Purple Finches (*Carpodacus purpureus*), Cardinals (*Cardinalis cardinalis*), White-crowned Sparrows (*Zonotrichia levcophris*), etc. As the days passed the bird became bolder and finally flew to the feeder about five feet from the observation point within the house. He remained on view, almost on demand, for ten days. On Wednesday, 9 January, five Evening Grosbeaks (*Hesperiphona vespertina*) appeared at the Edwards' and the next day both they and the Black-headed Grosbeak (*Pheucticus melanocephalus*) were gone. The bird was seen a few days later in the vicinity but has not been seen since.

On 1 January 1974 the bird was seen by Margaret Mann and Pat Stallings of Nashville and subsequently by Dr. Katherine Goodpasture, Mike Bierly, Ann Tarbell, Mrs. William Fentress, Mr. and Mrs. Paul Crawford of Nashville, Mr. and Mrs. Don Manning of McKenzie, Dr. and Mrs. Benton Basham of Dunlap and Morris Williams.

The bird remained hidden except when coming to the feeder and was never noted to eat anything but the sunflower seed. During the entire stay of the bird, with perhaps the exception of an hour or two, the sky was overcast and the weather cool and damp. The bird was first seen following some severe weather conditions that had prevailed.

ANNE HETTISH, 1018 Lawndale Drive, Murfreesboro 37130.

LONGEVITY AND MOVEMENTS OF BANDED PURPLE FINCHES—Purple Finches (*Carpodacus purpureus*) have produced more outstanding records at my home banding station than any other migrant wintering species. However in the earlier years (1926-1959) there were few recorded although the feeders attracted many other species. Bird banding was conducted systematically from 1931, yet none was banded until November 1939 (2 individuals). The scarcity continued until 1960 when 387 were banded. Since then there have been intermittent population and banding years, as follows: 1966 (828); 1968 (26); 1969 (1,028); 1970 (1,423); 1971 (one on November 5); 1972 (542); 1973 (203). Usually none is trapped before January. In 1963 and 1964 when they were absent from my home, I banded 119 and 264 respectively at the home of Sue M. Bell about 1.5 miles southwest. In 1970, in addition to the 1,423 banded, I trapped 54 that had been banded by Katherine A. Goodpasture and she trapped 28 that I had banded. Our home stations are about a half mile apart, but Purple Finches are known to wander over a considerable area to other feeding and banding stations.

One individual which I banded 12 February 1972 was retaken on the following day by M. L. Bierly at the home of Roger Harshaw about 10 miles northeast (*Bird-Banding* 1972). As Purple Finches are gregarious in winter and occupy a communal roost (*Auk* 1958), this behavior may account for an individual following a different flock at the morning dispersal from a roost.

The total number banded is 4,954. I have had 50 individuals return in subsequent years and 15 recoveries outside of Tennessee: Minnesota (2); Wisconsin; New York; New Jersey; Massachusetts (2); Connecticut; Vermont; Maine (3); Alabama; North Carolina; Maryland. Of these only 5 were reported dead and 10 were trapped and released by banders.

Among the returns, No. 73-53582 was in his 9th year of age at least. He had been banded in 1966 as an adult male in raspberry red plumage, was retaken twice in 1970 and again in January and March 1973. As Purple Finches do not attain their adult plumage until the second year, he was hatched in 1964 or earlier.

Another individual, No. 79-42897, banded February 1972, age and sex unknown, was trapped twice and released in May 1972 in Connecticut by Gordon Loery. It was back at my home and trapped in January 1973 in the brown plumage of a female (*Bird-Banding* 1973).

In 1972 Bessie Walker operated for several months as my sub-permittee using my bands at her home in Mount Juliet. From 17 February through 9 April, 131 Purple Finches were banded. The following season, she had 13 returns (10 percent). The earliest was an adult male, banded 10 March 1972 which returned 6 December 1972.

She trapped and released a female in its 6th year of age that had been banded in Massachusetts. She also trapped a Canada-banded bird that had been banded 12 March 1970 in Edmonton, Alberta.

1958 *Auk* 75:475-476. A winter roost of Purple Finches.
1972 *Bird Banding* 43:287. One day or one night mileage of migrant birds.
1973 *Bird Banding* 44:227. A longevity and round trip records of banded Purple Finches.

AMELIA R. LASKEY: deceased (*The Migrant,* 44:106).

THE SIXTIETH ANNUAL SPRING TOS MEETING

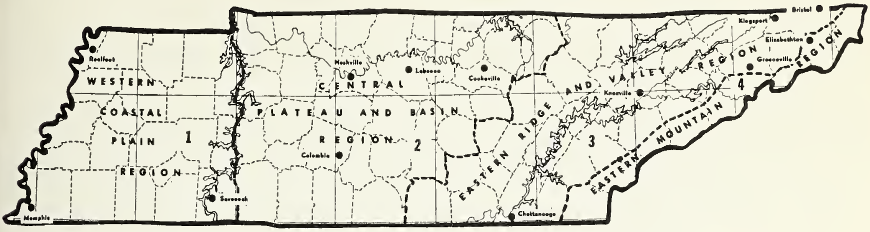
COLUMBIA, TENNESSEE

2, 3, 4 MAY 1975

Headquarters will be at the Holiday Inn. For reservations write Holiday Inn, Columbia, Tennessee 38401, or call 615—388-2720. Additional information will be sent out well in advance by the host chapter Columbia. If further details are desired contact George R. Mayfield, Jr., Maury County Hospital, Columbia, Tennessee 38401.

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
CENTRAL PLATEAU AND BASIN REGION
2
Nashville
Lebanon
Cookeville
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

SPRING SEASON: 16 MARCH - 15 MAY

If there is a singular characteristic of the following season report it is the lack of information submitted to the Regional Compilers by our birding membership who by their very natures should be *most active* during the spring season. However, there are many observations of note such as the Whistling Swan, Willets, Baird's Sandpipers, and Short-eared Owl reported from the Central Plateau and Basin Region. Red Crossbills were seen in the two central regions of the State, and a Harris Sparrow was found in Gallatin.

Many Shorebirds were reported in the Eastern Ridge and Valley Region. This region also reported a Snowy Egret and a bird which continues to become less frequent in Tennessee, the Bachman's Sparrow. Most noteworthy are the many nesting records of raptorial species in this region's data.

Lark Sparrows were observed in Bristol.

No great concentrations of migrating birds were reported, but perhaps this is more of a reflection of the scarcity of reports to the compilers than of a lack of birds. Seen a good bird lately? Write your *Season's* Regional Compiler about it.

WESTERN COASTAL PLAIN REGION—No report this season because of the noted absence of observations submitted to the Regional Compiler prior to his editor's deadline.

CENTRAL PLATEAU AND BASIN REGION—This report is hardly representative of the region since it includes records from only the Nashville Area and Lawrence County. Observers in Middle Tennessee are urged to report their findings to the regional compiler. Data from the spring counts has generally not been duplicated in this report.

One can only speculate as to the origin of the *BAND-TAILED PIGEON* reported at Old Hickory Lake by Bill and Sally Fintel.

Grebe-Sandpiper: Pied-billed Grebe: 5 May (2) BV (MLB); Green Heron: 6 Apr. (1) OHL (BF, SF); Little Blue Heron: 14 Apr. (2) BV (MLB); 5 May (3) FP (MDW); 15 May (5) G (SB, DC, PC, AN); Great Egret: 4 Apr. (1) NA (MPS); Cattle Egret: 27 Apr. (3) NA (MLB); 7 May (1) Lawrence Co. (Lloyd Clayton, MDW); Black-crowned Night Heron: 30 Mar.

(40) BH (MLM); Yellow-crowned Night Heron: 30 Mar. (1) BH (MLM); American Bittern: 5 May (1) BV (MLB); *WHISTLING SWAN:* 16 Mar. (5) Hunter's Point (William Vaughn); Black Duck: 17 Mar. (5) Ashland City Marsh (MLB); Gadwall: 30 Mar. (4) RL (MLB); Wood Duck: 5 May (1 female, 8 young) BV (MLB, Benton Basham); Bufflehead: 14 Apr. (10) RL (MLB); Red-breasted Merganser: 16 Apr. (7) OHL (MLM); *COOPER'S HAWK:* 27 Mar. (1) Fernvale (John Ellis); 23 Apr. (1) PWP (HR); Broad-winged Hawk; 5 Apr. (1) RL (MLB); Virginia Rail: 27 Apr. and 5 May (1) BV (MLB); Sora Rail: 27 Apr. (3) BV (MLB); Common Snipe: 31 Mar. (57) OHL (MPS); *WILLET:* 28 Apr. (7) OHL (Knauth Party); White-rumped Sandpiper: 15 May (1) G (SB, PC, AN); *BAIRD'S SANDPIPER:* 15 May (3) G (SB, DC, PC, AN); Least Sandpiper: 9 May (200) BV (MLB).

Tern-Sparrows: Caspian Tern: 15 May (3) G. Steam Plant (PC); *BAND-TAILED PIGEON:* 9 Apr. (1 carefully observed by BF, SF) OHL; *SHORT-EARED OWL:* 23 Mar. (4) Smyrna Airport (MLM); Whip-poor-will: 29 Mar. (1) NA (MLB); Common Nighthawk: 28 Mar. (1) NA (DC); Ruby-throated Hummingbird: 2 Apr. (1) NA (KAG); Eastern Kingbird: 12 Apr. (2) NA (JR, HR); Willow Flycatcher: 19 May (1) BV (MLB, Chap Percival); Least Flycatcher: 28 Apr. (2) RL (MLB); Tree Swallow: 16 Mar. (7) WL (MLM, MPS); Barn Swallow: 16 Mar. (3) WL (MLM, MPS); Blue-gray Gnatcatcher: 21 Mar. (1) FP (MDW); Warbling Vireo: 10 Apr. (1) NA (MLM); 6 May (2) FP (MDW); 7 May (2) Arrow Lake, Maury Co. (MDW); *ORANGE-CROWNED WARBLER:* 21 Apr. (1) Ft. Negley (MLB); 22 Apr. (1) RL (MLB); Pine Warbler: 16 Mar. (2) FP (MDW); Louisiana Waterthrush: 16 Mar. (1) FP (MDW); Wilson's Warbler: 3 May (1-netted) 2JS (JR, HR); Rusty Blackbird: 20 Mar. (50) FP (MDW); 13 May (1, late) OHL (SF); Purple Finch: 12 May (1) NA (Pauline Miller); Pine Siskin: 7 May (1) OHL (BF, SF); *RED CROSSBILL:* 14 Apr. (7) Basin Springs (KAG); 14 Apr. (12) PWP (MLB); Vesper Sparrow: 21 Mar. (12) FP (MDW); *HARRIS' SPARROW:* 18 Mar. (1, adult) G (Mrs. Leland Scott); Lincoln's Sparrow: 4 May (7, banded) 2JS (HR, JR).

Locations: BH—Bordeaux Heronry, BV—Buena Vista, FP—Five Points, G—Gallatin, NA—Nashville Area, OHL—Old Hickory Lake, PWP—Percy Warner Park, RL—Radnor Lake, 2JS—Two Jays Sanctuary, WL—Wartrace Lake.

Observers: MLB—Mike Bierly, SB—Sue Bell, DC—Dot Crawford, PC—Paul Crawford, BF—Bill Fintel, SF—Sally Fintel, MLM—Margaret Mann, AN—Anne Nichols, HR—Heather Riggins, JR—John Riggins, MPS—Pat Stallings, MDW—Morris Williams.

MORRIS D. WILLIAMS, Five Points, Tennessee 38457.

EASTERN RIDGE AND VALLEY REGION—The season started out with almost double the normal amount of rainfall in March. April and May weather was more normal.

Most wintering birds left on schedule and migrants passed through at normal times. Interesting nest records included a very early King Rail nest at Amnicola Marsh, which had 8 eggs on 26 March. (Details will be published later). Barn Owls nested in a hollow tree at Amnicola Marsh and in an old water tower in Knox County. The Elizabethton area reported a very good shorebird migration.

Notable out-of-range or off-schedule species included a Common Gallinule at Amnicola Marsh and a Double-crested Cormorant at Austin Springs.

Loon-Merganser: Common Loon: 25 Mar. (3) ChL (KLD); 13 Apr. (5 calling) Watts Bar Lake (CN); 23 Apr. (1 calling) NL (KLD); 27 Apr. (1) BL (JD, SG); 12 May (1) Chilhowee Dam (JH); 15 May (1) Melton Hill Lake (CN); Horned Grebe: last 27 Apr. (7) BL (JD, SG); *DOUBLE-CRESTED CORMORANT:* 13 May (1) AS (GE, LRH); Green Heron: first 30 Mar. (1) Erwin (GE, HF); Little Blue Heron: 20 Apr. (1 adult) AS (GE, HF, LRH); 28 Apr. (1) AM (GLB); 15 May (1) AM (KLD); Cattle Egret: 30 Mar. (1) SeV (LSF); 31 Mar. (1) AM (DJ, RW); 6-9 Apr. (1) AS (GE, HF, LRH); First Washington County Record; 7 and 20 Apr. (1) AM (GLB); 30 Apr. (1) Cleveland (KLD); *SNOWY EGRET:* 14 Apr. (1) WW (LS); Black-crowned Night Heron: 15 Apr. (1) ALM (MDW); 1 May (1) AS (GE, HF); Yellow-crowned Night Heron: 20 Apr. (1) AS (MD, SG, JW); 6 May (2 nests) AM (RW); Least Bittern: 22 Apr. (1) AM (KLD); 12 May (1) AS (GE), 14 May (1) ALM (MDW); American Bittern: thru 1 May (1-2) AM (KLD, DJ); thru period (1-2) ALM (MDW); Black Duck: 5 May (nest w/8 eggs) FLL (Doug Jett, CN, Bob Rountree); Greater Scaup: 25 Mar. (137) CHL and HRA (KLD); Canvasback: 22 Mar. (22) BL (MD, SG, JW); Red-breasted Merganser: last 2 May (2) CHL (KLD).

Vulture-Hawk: Turkey Vulture: 30 Mar. (70 at roost) Daus (LSF); 7 Apr. (85 at roost) Little T River (AM, CN); Black Vulture: 3 Apr. (nest, 2 eggs), 14 May (2 young) McL (Jay Clark, KLD, DJ, et al), same site as 1973 nest; Sharp-shinned Hawk: 21 Mar. (1) JC (MD, SG); 30 Mar. (2) AS (GE, HF); 2 Apr. (1) LHS (LD); 11 Apr. (1) Erwin (GW); *COOPER'S HAWK:* 7 Apr. (1) CL (JMC, JCH); 11 Apr. (1) AS (MD, SG); Red-shouldered Hawk: 4 nests in Chatt. area (DJ, et al); Broad-winged Hawk: 11 Apr. (29) K (JH); 15 Apr. (2 at nest) TRG (KLD); 30 Apr. (nest, 3 eggs) KC (CN, Boyd Sharp, MDW); Osprey: 7 Apr. (1) Little T near Chilhowee (AM, CN); 11 Apr. (1) K (JH); 13 Apr. (1) AS (DJL, GW); 12 Apr. (1) Loudon (CN); 21 Apr. (w at nest) Watts Bar Lake (KLD); 22 Apr. (1) Melton Hill Lake (CN); American Kestrel: 1 nest on UTK Campus (JH, AM, CN, MDW).

Rail-Sandpiper: King Rail: 26 Mar. (4, and nest with 8 eggs) AM (KLD, DJ) very early nest date; 23 Apr. (2) first at ALM (MDW); Virginia Rail: 26 Mar. (1) AM (DJ); Sora Rail: conspicuously absent during season, 10 Apr. (1) ALM (MDW); Common Gallinule: 7-15 May (1) AM (LD); Semipalmated Plover: 1 May (1) AS (GE, HF, DJL); American Woodcock: about 10 singing males during period in Knox Co. (MDW); Common Snipe: up to 100 birds during period at ALM (MDW); last reports 1 May (1) AS (GE, HF) and 2 May (7) AM (KLD); Upland Sandpiper: 5 Apr. (1), 6 Apr. (5), 7 Apr. (1) SeV (LD, DJ, LSF); Spotted Sandpiper: First 18 Apr. (1) AS (MD, SG, EO), thru end of period (1-2) at AM (KLD); Solitary Sandpiper: 3 Apr. (1) AS (GW); 22 Apr. - 10 May (1-3) AM (KLD); 10 May (1)

ALM (CN, MDW); Greater Yellowlegs: 25 Mar. (1) HRA (KLD); 14 Apr. (1) CL (JMC, JCH); Lesser Yellowlegs: regular (1-13) at AM, SB, HRA (KLD); 14 Apr. (1) CL (JMC, JCH); Pectoral Sandpiper: 18 Mar. (16) HRA and SB (KLD); 23 Mar. (18), 25 Mar. (3) SB (KLD); 26 Mar. (21) AM (KLD); White-rumped Sandpiper: 13 May (1) AM (KLD); Least Sandpiper: 25 Mar. (36) HRA (KLD), present thru 12 May at AM (KLD); Dunlin: 25 Mar. (last wintering) (66) SB and HRA (KLD); 24 Apr. (1) AS (GW); 27 Apr. - 1 May (1-2) AS (GE, HF); Short-billed Dowitcher: 29 Apr. (1, by call note) AM (KLD, FW); Semipalmated Sandpiper: 12 and 13 May (1) AM (KLD); Western Sandpiper: 13 May (2) AS (GE).

Gull-Martin: Bonaparte's Gull: 30 Mar. (3) Chl (KLD); 5 Apr. (5) Chl (AG, LD); 6 Apr. (18) BL (GE, HF, LRH); 7 Apr. (5) NL (LSF); Caspian Tern: 28 Apr. (1) FLL (CN, MDW); Black Tern: 7 May (1) AM (LD); *BARN OWL:* 21 Apr. (nest, 1 young) AM (KLD, DJ); 2 *NESTS* Elizabethton area, 1 with 3 young, other unknown number of young (GE et al): *NEST* with 4 young, Eastern State Farm, KC, fledged 10 May (MDW); Screech Owl: 24 Apr. (nest, 3 eggs) KC (Doug Harned, CN); Chimney Swift: 2 Apr. (migrating flock of 50) K (John Elson); Willow Flycatcher: 11 May (2) first, ALM (MDW); 13 May (2) AS (GE, LRH); Trail's Flycatcher (species?): 15 May (1) AM (KLD); Tree Swallow: 24 Apr. (15) AM (KD); Purple Martin: numbers greatly reduced in Elizabethton area.

Jay-Sparrow: Blue Jay: 13 migrating flocks noted from 21 Apr. - 28 Apr. at Chat. area (KLD, et al); Red-breasted Nuthatch: 6 Apr. (2) Col (RW), thru 28 Apr. at K (CN, MDW, et al); House Wren: first report 14 Apr. (1) CC (JMC, JCH); *BEWICK'S WREN:* 23 Mar. (1) JC (SG); 21 Apr. (1) HRA (KLD, et al); Long-billed Marsh Wren: 31 Mar. (1) HRA (DJ); Short-billed Marsh Wren: 27 Apr. (1) JC (JD, SG); 1 May (1) AM (KLD); Cedar Waxwing: 27 Mar. (450) CH (DJ); Loggerhead Shrike: 6 May (nest, 4 young) Da (JBB); Warbling Vireo: 30 Apr. (1) K (JH); *ORANGE-CROWNED WARBLER:* 2 May (3) K (JH); Wilson's Warbler: 13 May (1) K (JH); Canada Warbler: 6 May (7) TRG (KLD); American Redstart: 23 Apr. (35) TRG (KLD); Bobolink: 7 May (10) HRA (KLD); Northern Oriole: 6 May (2) TRG (KLD); Rusty Blackbird: 31 Mar. (5) Lookout Valley (DJ); Brewer's Blackbird: 22 Mar. (4) JC (MD, SG); Pine Siskin: 17 Apr. (300+) Signal Mtn. (LS); 27 Apr. (25) K (CN); 7 and 8 May (1) Am (KLD); *RED CROSSBILL:* 15 Apr. (10) CH (AG); 20 Apr. (18) AS (GE, HF); 28 Apr. (4) K (CN, MDW); 9 May (10) JC (HD); *BACHMANN'S SPARROW:* 14 May (1) McL (DJ); White-Crowned Sparrow: 7 May (1) AM (KLD); White-throated Sparrow: last 14 May (3) K (JH).

Locations: ALM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BL—Boone Lake; CC—Campbell County; CH—Chattanooga area; ChL—Chickamauga Lake; Col—Collegedale; CL—Cove Lake; Da—Daus; FLL—Fort Loudon Lake; HRA—Hiwassee River Area; JC—Johnson City; K—Knoxville; KC—Knox County; LHS—Long Hollow Swamp; Mcl—McLemore's Cove, Ga.; NL—Nickajack Lake; PHL—Patrick Henry Lake; SB—Savannah Bay; TRG—Tennessee River Gorge; SeV—Sequatchie Valley; WW—Wildwood, Ga.

Observers: GLB—Gary L. Bayne; JBB—J. Branson Black; JMC—James M. Campbell; JD—Joy Dillenbeck; MD—Martha Dillenbeck; LD—Lil Dubke; KLD—Ken and Lil Dubke; GE—Glen Eller; HF—Harry Farthing; AG—Anne Gibson; SG—Sally Goodin; LRH—Lee Herndon; JH—James Holt; JCH—J. C. Howell; DJ—Daniel Jacobson; DJL—Dick and Joyce Lura; AM—Andrew Morton; CN—Charles Nicholson; EO—Elizabeth Osborne; LS—Lee Shafer; LSF—Lee Shafer Family; GW—Gary Wallace; MDW—Morris D. Williams; RW—Roger Woodruff; JW—Jane Whitehead.

Charles P. Nicholson, 6806 Haverhill Dr., Knoxville 37919.

EASTERN MOUNTAIN REGION—This period's only reports came from the extreme upper corner of the area, therefore, this report will not be a true composite of the overall bird life of the entire region. *This reporter needs more material.* Would you please help out?

The weather for the last half of March continued very wet, with the entire month recording over twice the normal amount of rainfall. The months of April and May have been normal in all conditions. This factor perhaps will explain the "very average" migration we experienced.

The most unusual report was that of two Lark Sparrows in Bristol.

Loon-Osprey: Common Loon: last seen 27 April (2) Wat. L (LRH and JM). Great Blue Heron: last seen 27 April (1) H.S. (GW and DJL). *CATTLE EGRET:* 4 April (1) Wat. R (GE, LRH and HF). Yellow-crowned Night Heron: 7 and 8 April (2) H.S. (GE and HF); 13 April (1) SmV (GE); 27 April (2) H.S. (GW and DJL). Green-winged Teal: last seen 4 April (5) Wag. I (GW and HF). Northern Shoveler: last seen 6 April (10) Wat. L (GW). Bufflehead: two have remained at Wil. L thru end of period (HF, et al). Ruddy Duck: 20 March (1) G.L.P. (GW). Hooded Merganser: last seen 21 March (6) Wat. L (GW and DJL). Red-breasted Merganser: 20 March (1) Wil. L (GE and JM). Sharp-shinned Hawk: 6 and 20 April (1) SmV (GE, HF and LRH); 11 May (1) RM (GE and GW). *COOPER'S HAWK:* 14 April (2) IMG (SG). Red-shouldered Hawk: 14 and 27 April (1) IMG (SG and JD). Broad-winged Hawk: first returned 7 April (2) H.C. (TMS). Osprey: first returned 5 April (1) Wag. I (GE).

Rail-Vireo: Sora Rail: 27 April (1) G.L.P. (GW and DJL). Woodcock: 14 May (2) Milligan (GE). Spotted Sandpiper: first returned 13 April (1) Wat. R (GE). Solitary Sandpiper: very early 20 March (1) SmV (GE and JM). Greater Yellowlegs: 2 and 20 April (1) SmV (HF and GW). Lesser Yellowlegs: 2 and 17 April (2) SmV (HF). Pectoral Sandpiper: early return 20 March (3) SmV (GW and LRH). Bonaparte's Gull: 13 April (4) Wat. L (GE). Barred Owl: 27 April (3) Holston Mtn. (GE, LRH and GW). Chuck-wills-widow: 13 May (1) Milligan (GW). Red-headed Woodpecker: 23 thru 27 April (1) Eliz. (W. C. Hardin). Crested Flycatcher: first returned 15 April (1) H.C. (TMS). Tree Swallow: 5 April (2) H.C. (TMS). Purple Martin: first returned 17 March (2) Eliz. (FWB), these birds are greatly reduced in our local population this spring. Cedar Waxwing: 1 May (100) near J.C. (SG and MD); 14 May (32) Bristol (DW). White-eyed Vireo: early return 2 April (1) H.C. (TMS). Solitary Vireo: early return 23 March

(1) R.M. (TMS and FWB). Warbling Vireo: 27 April (2) SmV (GW and DJL).

Warbler-Sparrow: Golden-winged Warbler: 11 May (2) R.M. (JM, LRH, GE and GW). Blue-winged Warbler: 27 April (2) SmV (GW and DJL). Nashville Warbler: 29 April (1) H.S. (GW). Cape May Warbler: early return 7 April (1) Bristol (DW). Cerulean Warbler: 13 May (1) H.S. (GW). Palm Warbler: 27 April (2) SmV (GW and DJL). Northern Waterthrush: 27 April (1) H.S. (GW and DJL); 11 May (2) SmV (GW and GE). Wilson's Warbler: 10 May (1) SmV (GW); 12 May (1) Bristol (Anna Cantwell). Brewer's Blackbird: 14 and 19 April (2) Wag. I (GE and FWB). Blue Grosbeak: early return 14 April (1) Eliz. (GE). Evening Grosbeak: smaller numbers this year but a few still remaining at various feeders thru end of period. Purple Finch: last seen 5 May (3) H.C. (TMS). Pine Siskin: last seen 11 May (50) R.M. (GE and GW). Vesper Sparrow: 5 and 6 April (6-12) SmV (GE and HF). *LARK SPARROW:* 13 May (2) Bristol (JA). White-crowned Sparrow: last seen 11 May (1) Eliz. (HF). White-throated Sparrow: last seen 14 May (2) Eliz. (GE). Fox Sparrow: 16 March (1) Eliz. (HF); 26 March (2) Bristol (JA); 13 April (1) R.M. (TMS).

Locations: Eliz.—Elizabethton, GLP—Great Lakes Pond (near Eliz.), H.C.—Heaton Creek (near R.M.), H.S.—Hunter Swamp (near Eliz.), IMG—Iron Mtn. Gap, J.C.—Johnson City, R.M.—Roan Mountain, SmV—Siam Valley (near Eliz.), Wag. I—Wagners Island (near Eliz.), Wat. L—Watauga Lake, Wat. R—Watauga River, Wil. L—Wilbur Lake.

Observers: JA—Judy Abbott, FWB—Fred Brehend, JD—Joy Dillenbeck, MD—Martha Dillenbeck, GE—Glen Eller, HF—Harry Farthing, SG—Sally Goodin, LRH—Lee Herndon, DJL—Dick and Joyce Lura, JM—John Martin, TMS—Tommy and Maxie Swindell, DW—Diane Wilson, GW—Gary Wallace.

Glen D. Eller, Route #3, Grandview Terrace, Elizabethton 37643.

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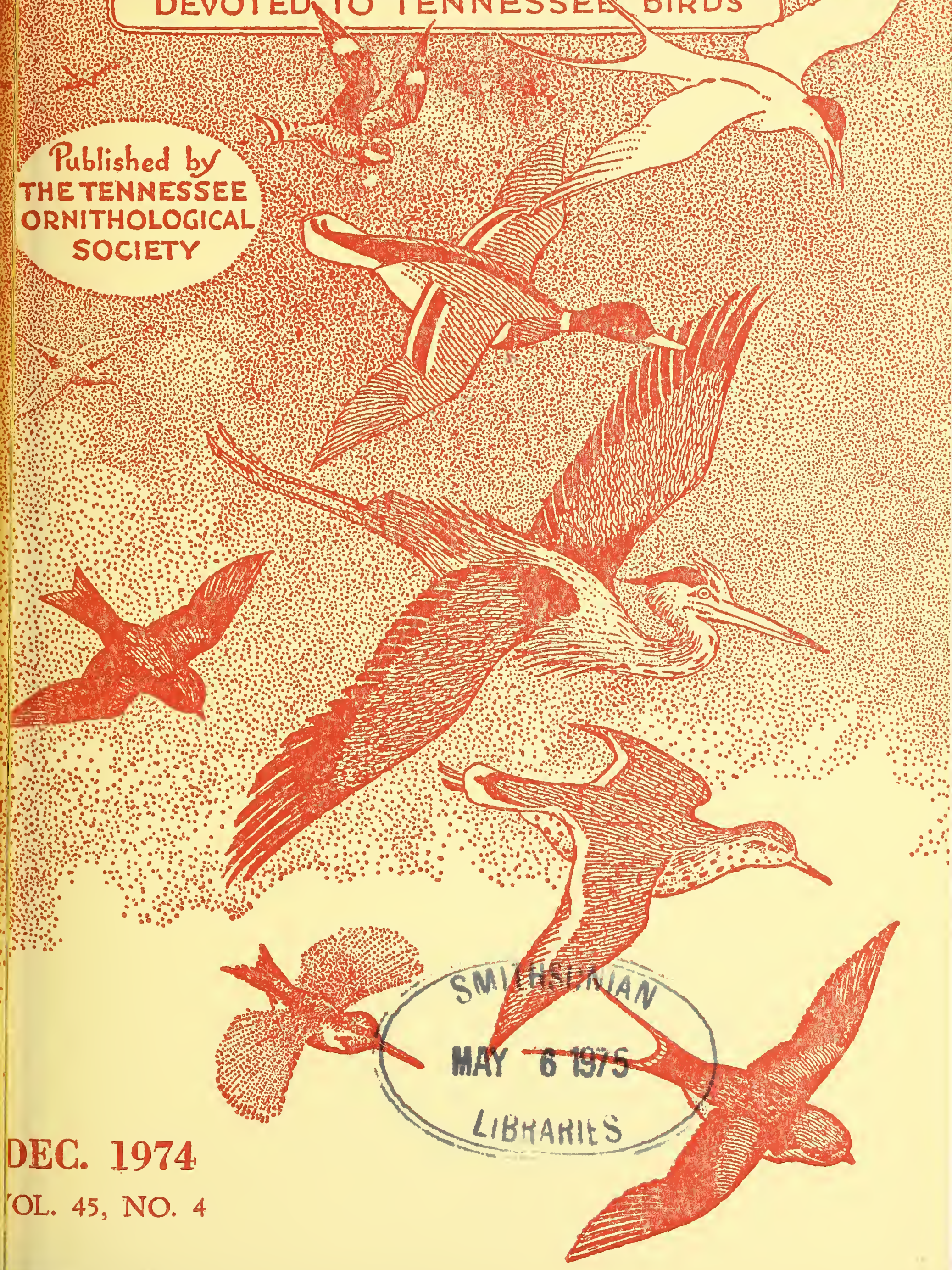
THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS



Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

SMITHSONIAN
MAY 6 1975
LIBRARIES

DEC. 1974
VOL. 45, NO. 4

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915
A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 45 DECEMBER 1974 NO. 4

FOSSIL BIRDS OF TENNESSEE

JAMES X. CORGAN

While the modern avifauna of Tennessee is reasonably well known, it has an inadequately documented geologic history. Of all the hundreds of articles on the birds of Tennessee, only one has focused on avian paleontology (Shufeldt, 1897). The present paper attempts to catalogue all known occurrences of fossil birds in Tennessee. It also calls attention to three correctable factors that limit knowledge of Tennessee's ancient avifaunas.

CATALOGUE

Fossils are the remains of truly ancient organisms. In terms of earth history, they date back at least as far as the Ice Ages, the Pleistocene Epoch. In Tennessee, the Pleistocene ended some 9,500 years ago.

Archaeological sites throughout the state yield a variety of bird remains that are too young to be classified as fossils but too old to be part of the historic fauna. These are termed subfossils and they vary widely in age. Some are the remains of organisms that barely postdate Pleistocene time. Others lived a few hundred years ago. Virtually all subfossil species are still living or were part of the historic fauna. In geologic terms, bones from archaeological sites are viewed as part of the modern fauna, the fauna of the Recent Epoch.

True fossils provide insight into the development of the modern fauna while subfossils yield data on the zoogeography of the Recent Epoch. Subfossils are not considered in this paper. The catalogue, given below, discusses four sets of true fossil collection.

1. *George Farm Local Fauna. Gassaway, Cannon County.* Whitlatch and Arden (1942) provide an exact description of this locality. The late Dr. R. Lee Collins, of the University of Tennessee, was describing this fauna when he died in 1959. His collection was donated to the Smithsonian Institution. Though the fauna was not fully described, enough is known to determine its geologic age. It represents some part of the late Wisconsin Stage of the Pleistocene, roughly 20,000 to 50,000 years before present. Bird remains occur but have not been identified. Any qualified ornithologist should be able to borrow this collection from the Smithsonian. Study of the avian fossils would require

both a considerable knowledge of osteology and access to an extensive collection of skeletons. Even a small collection might provide challenging material for a Master's Thesis.

2. *Robinson Cave Local Fauna, Okalona area, Overton County.* Parmalee (*In* Guilday, Hamilton, and McCrady, 1969) described a very diverse biota from this locality. The age is approximately the same as for the George Farm Local Fauna, discussed above. Robinson Cave yields at least twelve species of fossil birds. Only two have been identified: *Bonasa umbrellus* (Linnaeus), the Ruffed Grouse, and *Ectopistes migratorius* (Linnaeus), the Passenger Pigeon. Additional taxa include a Screech Owl (*Otus asio*) a grouse, a wood warbler, a jay, and at least six unassignable species of passerine birds.

While most species are now indeterminate, bird-oriented naturalists should view Robinson Cave as a great potential source of data. Anyone familiar with the work of Dr. Paul W. Parmalee can rest assured that the initial study was well done and there is little hope that all specimens can ever be fully identified. John Guilday, of the Carnegie Museum, warns that indeterminate specimens are very fragmentary. Yet, year-by-year knowledge of fossil birds improves. Specimens that were indeterminate in 1969 may be quite identifiable in 1979. Those who are expert in one of the groups present should acquaint themselves with this fauna.

3. *The Carnegie Collections, Sullivan County.* In the late 1960's and early 1970's, the Carnegie Museum, of Pittsburgh, Pennsylvania, participated in two excavation programs involving vertebrate fossils from Sullivan County, Tennessee. In the first program, S. D. Dean and other amateur naturalists from Sullivan County excavated about ten caves that yielded vertebrate fossils. While the Carnegie museum was not involved in the excavation phase of this program, museum personnel did identify collections.

In the second program, the Carnegie Museum, itself, conducted paleontological investigation in two Sullivan County caves. Apparently none of the caves excavated by amateurs yielded bird remains. An extensive Pleistocene avifauna from one of the Museum's excavations is now being studied by Dr. Paul W. Parmalee, of the University of Tennessee.

4. *The Mercer Collections.* Between 1893 and 1896, Dr. Henry C. Mercer, of the University of Pennsylvania, directed several major excavations in Tennessee caves (Mercer 1894a; 1894b; 1896; 1897). Hay (1923) provides a summary of the paleontological aspects of Mercer's work. While the Mercer parties visited many caves, they focused on three. Nikajack Cave, in Marion County, yielded sub-fossil vertebrates from an archaeological site. Both archaeological and pre-archaeological horizons yielded vertebrate remains in Lookout Cave, Hamilton County, and Big Bone Cave, Van Buren County.

Bird remains collected by Mercer were described by Shufeldt (1897). A list of Shufeldt's identifications is reproduced in Table 1, using the original nomenclature. Shufeldt's text does not provide a collation of any sort. One can not learn which caves yielded which birds. Birds from Pleistocene horizons are not differentiated from those that occurred in association with human cultural remains.

TABLE 1

SHUFELDT'S PREHISTORIC BIRDS
OF TENNESSEE

Colymbus auritus	Grebe
Genus and species indet.	"Duck"
Colinus virginianus	Partridge
Bonasa umbellus	Ruffed Grouse
Genus uncertain species new?	"Grouse"
Tympanuchus sp.	Prairie Hen
Meleagris gallopavo	Turkey
Ectopistes migratorius	Passenger Pigeon
Megascops asio	Screech Owl
Ceophalaeus pileatus	Pileated Woodpecker

Mammalian fossils from Big Bone and Lookout Caves clearly indicate that faunas of Pleistocene (Wisconsin) age occur. An exhaustive attempt to locate Shufeldt-Mercer avian fossils in the universities and museums of eastern North America was completely unsuccessful. Apparently there is no way to determine which birds, if any, occurred with the Pleistocene mammals. All records are thus lumped under the catch-all heading "Prehistoric (Table 1). Though this uncertainty limits the utility of Shufeldt's list, the list remains a prime source of information. For example, data in Brodkorb ((1971, p. 264) suggest that Shufeldt provides the south-eastern most prehistoric record of the Pileated Woodpecker.

LIMITING FACTORS

Tennessee has been around a long time. The mountains of East Tennessee rose above sea level in the Appalachian Revolution of the Late Paleozoic and have been above sea level for some 275,000,000 years. Middle Tennessee was last influenced by marine waters some 65,000,000 years ago in the closing phases of the Cretaceous Period. West Tennessee has been dry land since some time in the Eocene Epoch, roughly 45,000,000 years before present. Thus, the mountains of East Tennessee were ancient when the earliest known birds appeared some 140,000,000 years ago, near the close of the Jurassic Period. All of Tennessee has, probably, been populated by birds for at least the last 45,000,000 years. If birds have been common in Tennessee for millions of years, why should their fossil record be so pathetically meager? One can identify at least three factors that are correctable and that currently limit our knowledge of Tennessee's ancient avifaunas:

1. Most paleontologists who work with vertebrates are relatively unskilled in avian paleontology. Thus, a site may yield an abundance of bird fossils which remain unidentified and, perhaps, undescribed when a faunal report is published.

2. People who are skilled in the osteology of birds rarely become involved with fossils.

3. Archaeologists, ornithologists, rock hounds, spelunkers, and other nature-buffs who discover fossils rarely know how to initiate a scientific study of their discoveries. Thus, most fossil finds that could contribute to knowledge of the life of the past never make an impact on the scientific world.

Perhaps the lack of an impressive avian fossil record in Tennessee is largely a matter of poor communications. What do *YOU* do if *you* know a place where vertebrate fossils, of any sort, have been collected? You write to Robert E. Hershey, State Geologist, G-5 State Office Building, Nashville, Tennessee 37219. What do *YOU* do if *you* want to contribute to knowledge of the ancient avifaunas of Tennessee? You arrange to borrow one of the fossil collections that is now gathering dust in some out-of-state museum.

Throughout the southeastern Uniteed States pre-Pleistocene avifaunas are rare (Wetmore, 1956). Pleistocene birds are far more numerous (Hubbard, 1971) but Tennessee remains a blank spot on Pleistocene bird distribution maps. A small investment of energy by Tennessee-oriented avian osteologists might considerably enhance present knowledge of the spacial and temporal distribution of bird life, and life in general, during the Ice Ages.

SUMMARY AND CONCLUSIONS

No avian fossil older than the late Wisconsin Stage of the Pleistocene, about 50,000 years before present, is currently known from Tennessee. Only two species of birds have unequivocal Tennessee fossil records: the Ruffed Grouse and the Passenger Pigeon. Communication problems have, thus far, inhibited the development of avian paleontology in Tennessee. Unstudied and once studied collections of fossil birds gather dust in museums. The pathetic state of avian paleontology in Tennessee can eventually be corrected if two things are done. First, a general system of communicating about vertebrate fossils is required. Anyone who knows a vertebrate fossil locality and anyone who is studying fossils must communicate with the State Geologist. Secondly, bird-oriented naturalists must begin to focus some of their energies on the ancestoral populations from which the modern avifauna of Tennessee was derived.

ACKNOWLEDGMENTS

Knowledge of the George Farm Local Fauna and its present deposition comes largely from Dr. Robert E. McLaughlin, University of Tennessee. John E. Guilday, Carnegie Museum, provided data on Sullivan County collections. The following people kindly read a preliminary version of this manuscript: J. E. Guilday, Carnegie Museum, R. E. Hershey, Tennessee State Geologist, Dr. P. W. Parmalee, University of Tennessee, Dr. D. H. Snyder, Austin Peay State University, and Dr. A. Wetmore, Smithsonian Institution.

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Tennessee Division of Geology, Nashville, Tennessee 37219 and Austin Peay State University, Clarksville, Tennessee 37040.

ATTEND THE 1975 T.O.S. FORAY

23-25 MAY

LAUDERDALE COUNTY

The Memphis Chapter of T.O.S. will direct the activities. Information will be mailed out to each chapter. Headquarters will be in Covington, Tennessee. Check at office of Covington motels for location of registration. For additional information contact Ben and Lula Coffey, 672 N. Belvedere, Memphis 38107 or Noreen Smith, 3724 Oakley Ave., Memphis 38111.

LARK SPARROWS NESTING IN OBION COUNTY

DAVID PITTS

A pair of Lark Sparrows (*Chondestes grammacus*) successfully nested in Obion County, six miles west of Troy, in 1974. The Lark Sparrows nested in a 20 acre cattle pasture on rolling hills. The vegetation remained short during the spring and summer months. I observed Lark Sparrows in the area on ten occasions. A single Lark Sparrow flushed during heavy rain on 21 April. Two Lark Sparrows were together, and one individual was singing, on 5 and 6 May. The two individuals differed considerably in plumage. One showed the typical plumage of adult Lark Sparrows as illustrated in most field guides. The plumage of the other individual was much duller, especially on the head region, and the breast spot was barely distinguishable. I did not observe the duller individual singing, and I believe it to have been the female. Standard field guides (e.g., Peterson, 1947; Pough, 1949) and references (Bent, 1968; Chapman, 1966) state or imply that sexes are similar in all plumages throughout the year. However, Lawne (1946) and Williams (1971) also observed pairs of Lark Sparrows in Tennessee in which one individual was distinctly duller than the other.

On 11 May a male Blue Grosbeak (*Guiraca caerulea*) and a Lark Sparrow chased a female Brown-headed Cowbird (*Molothrus ater*). I found the Lark Sparrow nest on 24 May, just before dark. The nest was on the ground on a northwest facing slope and was almost completely covered by a clump of White Clover (*Trifolium repens*) and Fescue (*Festuca* sp.) approximately 10 inches high. The nest contained three large young; both adults closely approached me as I inspected the nest. The nest was empty when I visited it midmorning of 25 May. Both adults were near the nest site and the male approached to within 10 feet of me. No young were observed. On 29 May the male Lark Sparrow was in trees southwest of the nest. On 5 June five Lark Sparrows, two adults and three juveniles, perched on a fence at the south edge of the pasture. The adults permitted me to approach to within 25 feet, but the young were more wary. Two Lark Sparrows were in the pasture on 9 June. One Lark Sparrow was in the pasture on 26 June; I saw no Lark Sparrows after this date despite my frequent visits to the area. Apparently a second nesting was not attempted.

Although several nests of Lark Sparrows have been found in Tennessee, most have been in Middle Tennessee. The only reference, to my knowledge, of Lark Sparrows nesting in West Tennessee is the observation by Coffey (1951) of adults and juveniles in Shelby County.

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Biology Department, University of Tennessee at Martin, Martin 38237.

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THE TENNESSEE RAPTOR NESTING SURVEY

Under the stimulation of the Tennessee Ornithological Society the Tennessee Wildlife Resources Agency's Nongame Section is initiating a monitoring program to record the reproductive success of our birds of prey. The immediate effort for the 1975 season will be the recording on the Cornell Nest Card the results of any raptor reproduction observed.

Future goals of the program will include an intense literature search of what has been learned in the past with an eye to making the survey reflect accurately present trends in raptor breeding success. It is now a well known fact pesticides have played a key role in the near extinction of the Peregrine Falcon (*Falco peregrinus*) and that raptors play an important role as an effective early warning system on the health of our environment. This is the compelling reason for initiating the survey.

The overall Nongame Program is under the supervision of Mr. D. W. "Bill" Yambert with Mr. Adam Misztal in charge of the Raptor Nesting Survey. Mr. Yambert's address is P. O. Box 40747, Ellington Agricultural Center, Nashville 37204 and Mr. Misztal's is 603B, Mountain Trail, Hixson 37343. For those interested in participating in the survey they may contact either individual at their above listed addresses. More detailed information on the program will be forthcoming in a future issue of *The Migrant.*

TENNESSEE ORNITHOLOGICAL SOCIETY
BOARD OF DIRECTORS MEETING

The Board of Directors of the Tennessee Ornithological Society met at 14:00 22 November 1974 at Paris Landing State Park. Thirty-six Directors were present or represented by proxies. An abbreviated form of the minutes of the Spring Meeting at Pickwick Landing in May 1974 were read. The approval of the complete minutes will be in May, 1975 after they have been printed in *The Migrant.*

Dr. Katherine Goodpasture presented the suggestions of change for an update fieldlist. Points to consider were: whether T.O.S. wanted a fieldlist or checklist, the size of the card, number of folds, use of English or Latin family names, and whether the birds would be listed in family order or alphabetical order. Mr. Bill Yambert will serve on the committee as well as someone from West Tennessee. This will allow a member from each section to be represented and who will be responsible for submitting birds from their area. Dr. Goodpasture asked that any one interested in making suggestions to please submit them to any member of the committee.

Mrs. Noreen Smith, President, presented the recommendation of the Briley Estate Committee. It was recommended that this money, the principal and the intnerest as it accumulates be retained in a special fund until a future date when its use will be decided by action of the Tennessee Ornithological Society. In this case, the Finance Committee will make the recommendation to the President in accordance with the State Constitution. Some of the recommendations made by the Finance Committee for future use were: (a) as seed money toward a book of Tennessee birds, (b) put it in an endowment and use the interest for future avifaunas, (c) use toward the Society's expenses, or (d) toward the publication of *The Migrant.*

Dr. Arlo Smith moved that the estate be put in an endowment fund and use the interest for the Society's expenses and for publication of *The Migrant.* Dr. James Tanner seconded the motion. The motion was moved tabled by Rev. Senter, and seconded by Dr. George Mayfield until the issue of dues could be discussed. The motion was passed and the question tabled.

Reverend William Senter presented the status of the Dixon Merritt Memorial. At present time the State has given "the highest priority to the establishment of a Dixon Merritt self-guiding Nature trail within the confines of the Cedars of Lebanon State Park." The following recommendations were made:

(a) Thank the State Department of Conservation for its establishment of the Cedar Glade Study Area,

(b) Urge that work begin as soon as possible on the Self-Guiding Dixon Merritt Nature Trail System,

(c) Render whatever assistance may be requested by the State Park Naturalist,

(d) Set aside a day in March or April 1975 for a mini-foray in the Cedars of Lebanon State Park and Forest to census air fauna and habitat,

(e) Name one experienced in a foray as the leader on this day,

(f) Request that the Nature and Interpretive Center be named in honor of Mr. Merritt and a marker be designed and provided by the State,

(g) Invite the Lebanon Chapter of the TOS, the State of Tennessee and the family to join with it in providing appropriate memorial plaques commemorating Mr. Merritt's contribution,

(h) Request the TOS Committee comprised of Reverend Senter and six others (names not given) to present to the May meeting the design of our plaque and the ideas of the other contributors for their plaques.

(i) Move a preliminary allocation from the memorial fund and budget of the TOS for $200 with which to commission this plaque.

(j) Request that the state provide a film about Mr. Dixon Merritt and his activities for use in the Interpretive center and that there be some display in that center of Merritt memoriabilia appropriate to its naming.

(k) Propose that we all aim for a dedication of the Trail System, Interpretive Center, and memorial plaque by September 1975.

Reverend Senter moved that the resolution stated in the report be accepted excluding item (i). Mr. Ben B. Coffey, Jr. seconded, the motion carried.

Mr. Albert Ganier's Estate bequested $1,000 to the Tennessee Ornithological Society. It was decided that this money be placed in an endowment as this was what Mr. Ganier always supported. A motion was made by Reverend Senter and seconded by Mr. Ben B. Coffey, Jr. The motion was passed.

The question concerning the increase in State dues was brought before the Board of Directors. Mr. Don Manning moved to accept the increase as presented: Sustaining $7.50, Active 4.00, Family 5.00, Student 3.00, Subscription 4.00.

Dr. James Tanner seconded, the motion carried.

Reverend William Senter moved that a vote be taken at the May meeting to delete from Article II, Section 6 of the State Constitution the phrase College and University students. The motion was seconded by Mr. Bill Jones and passed. Reverend Senter moved that the Finance Committee report at the Spring Meeting the feasibility of an additional increase for 1976. Dr. George Mayfield seconded and the motion carried.

Dr. Gary Wallace asked that a committee be formed to rule as a group on new species sighted in the State. This committee would determine if that species would become part of the State record. Dr. George Mayfield suggested that the committee be composed of five members, one being the Editor of *The Migrant,* another being the State Curator and three other members, one from each section of the State. Such a committee was approved.

Mr. Bill Jones of Upper Cumberland Chapter, presented a resolution made by the Upper Cumberland Chapter to recommend that the State acquire the Icy Cove area for preservation in its natural state. Dr. George Mayfield moved that the Tennessee Ornithological Society should support the Upper Cumberland Chapter, this motion was seconded by Mrs. Louise Paige. The motion carried.

Dr. George Mayfield moved that the tabled motion be considered again. Reverend Senter seconded. The tabled motion was defeated. Mr. Don Manning moved that the estate be placed in a Briley Special Fund and the interest be used for the Society's expenses and *The Migrant*. Dr. Arlo Smith seconded. The motion carried.

The Spring meeting will be 2-4 May 1975 in Columbia. Headquarters will be at the Holiday Inn.

The Foray will be in Lauderdale County on Memorial Day weekend. The Memphis Chapter will direct the activities. Information will be mailed to the Chapters.

The Fall meeting will be at Fall Creek Falls in Mid-October, no later than 25 October.

MARTHA WALDRON, *Secretary.*

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REELFOOT LAKE EAGLE WATCH

Under stimulation from the T.O.S., the first organized Eagle Watch was held at Reelfoot Lake 18-19, January, 1975.

The first approach to this type of event was mentioned to Reelfoot Refuge Manager, Wendell Crews at the 1973 Fall Meeting. The idea was discussed and approved at the 1974 Fall Meeting held at Paris Landing State Park.

Even though a weekend in February would have been more conducive to a larger concentration of eagles, the January date was chosen because the Memphis Chapter had already picked the date for a weekend field trip and could serve as expert guides. Full cooperation was received in the promotion of the weekend from the Tennessee Wildlife Resources Agency and the Department of Conservation in widely distributed news releases.

The weekend began with registration on Friday evening at Ellington Hall, Reelfoot Lake State Park. Saturday morning at 9 a.m., the participants met and were separated into three groups for leisure auto tours to various vantage points to search for eagles. From noon until 2 p.m., the group was on their own for lunch. At 2 p.m. auto tours were assembled again for further observations.

The evening meeting began with a welcome by Park Superintendent Ralph Burris. Comments were made on the National Wildlife Refuge System and in particular the new Karl E. Mundt Refuge set aside exclusively for the large wintering population of Bald Eagles (*Haliaeetus levcocephalus*) in South Dakota and Nebraska.

Bill Yambert, Wildlife Resources Agency, spoke on Tennessee Endangered Species and Natural Areas. The excellent film "Eagles of the Eastern United States" was shown, followed by a brief session of questions and answers. A count of 131 participants was made at the evening program, with probably well over 150 in attendance at all events.

The eagles were the main attraction, however, we are sure that all participants were made much more fully aware of the fragile condition of Reelfoot Lake and what must be done if this area is to be preserved as a wildlife haven. Typically the eagles were noted perched or leisurely flying over the water. An exhilarating sight was noted by one small group, five immature eagles, soaring over the nearby hills, in the sharp, cold, blistery winter wind, performing what appeared to be the prenuptial courtship flight. The birds were observed for at least ten minutes. A conservative count for the weekend was 20 to 30 eagles, however before the season is over a count of upward to 200 eagles could be expected.

A special thanks should be given to Marilyn Williamson, Mack Prichard and Steve Pardue, Department of Conservation, State Parks Naturalists; Bill Yambert, Tennessee Wildlife Resources Agency and others for coordinating events for the weekend.

The activities could probably best be summarized by the elderly, handicapped gentleman from Dresden that joined one of the groups in observing an eagle for the first time. He had heard about the weekend over the local radio station and determined to journey over with his wife and others to see one of the raptors. It was heartwarming to witness his reaction when looking through the telescope and more so when he excitedly called for his wife to hurry and look also before the bird moved from its perch.

This initial effort to publicize the plight of our national bird was well received by the public and plans are now under way for another weekend next year.

KENNETH H. AND LILLIAN DUBKE Route 1, Box 134-D, Ooltewah 37363.

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FOR SALE

Tennessee Avifauna No. 3 by Albert F. Ganier can be purchased for $1.25 from Ken and Lil Dubke. Patches ($1.50 each) and decals ($1.00 each) may be purchased through your local chapter or from Ken and Lil Dubke, Route 1, Box 134-D, Ooltewah 37363.

ROUND TABLE NOTES

NOTES ON A SUMMER LOON RECORD FOR RUTHERFORD COUNTY—Although the Common Loon (*Gavia immer*) is known to occur regularly within the state of Tennessee during the winter months and both migration periods, records within the confines of Rutherford County, in middle Tennessee, are considered most unusual due to the scarcity of larger bodies of water. Consequently, an out-of-season sighting of this species (i.e. during the summer months) in this county must be regarded as an even rarer event. As circumstances would have it, though, such an occurrence did take place during the month of June, 1973. The following details are submitted concerning the course of this record.

On 25 June 1973 a student at Middle Tennessee State University found a live Common Loon near a small lake in the Toddington Heights section of Murfreesboro, Rutherford County, Tennessee. The bird appeared weak and readily ate, head first, a total of over fifty-five minnows offered as food. On the afternoon of the following day, 26 June, the loon was taken to the home of H. O. Todd, Jr. on Lascassas Road where it was released on a small pond about a half acre in size. The bird appeared active, both diving and preening itself. On the morning of 27 June the bird was not observed on the pond so an immediate search was begun of the surrounding vegetation. After some time the loon was located resting on small bulrush plants about two feet from the water's edge. It appeared ill and allowed approach within two feet before sliding into the water, whereupon it swam very slowly about. A check on the morning of 28 June again revealed the bird had left the water. Another search was instituted and in a short period the loon was found dead, its body resting on vegetation close to the water's edge. The following characteristics were noted when the specimen was examined: Weight—4 lbs. 7 ozs.; Total Length With Feathers—74.1 cm; Extent of Wings With Feathers—130.6 cm; Girth of Body—34.2 cm; Length of Exposed Culmen—80 mm; Length of Bill From Gape—115 mm; Greatest Length of Web Between Front Toes (Right Foot)—106 mm; Greatest Width of Web Between Front Toes (Right Foot)—61 mm; the webbing was completely missing from the left foot; the three front claws were badly worn on both feet; the claws of the hind toes appeared normal on both feet (the reader is referred to Baldwin, S. Prentiss, Oberholser, Harry C. and Worley, Leonard G. 1931. *Measurements of Birds.* Scientific Publications of The Cleveland Museum of Natural History, Volume II, Cleveland Ohio). An examination of the loon's plumage revealed that it matched the description given by Bent (Bent, Arthur Cleveland. 1919. *Life Histories of North American Diving Birds.* Dover Publications, Inc., New York) for the first winter bird. There may have been delay in the plumage change due to the physiological conditions which also brought about the bird's death.

The notes and measurements given above are submitted in substantiation of this record and in the hope that they will be of some value and encouragement to other field workers in the future in trying to establish and report the identity of any recovered loon specimens. The need for in-hand identification seems especially acute considering the number of reported sightings of the similar, but much less common, Red-throated Loon (*Gavia stellata*).

JON E. DEVORE, 4922 Sarasota Drive, Hixson 37343.

WHISTLING SWANS WINTER AT COLUMBIA—On 19 January 1974 Whistling Swans (*Olor columbianus*) were first observed on the Ridley Farm 4 miles SW of Columbia by Evelyn Ridley. Dan Gray, Jr. later confirmed this report and saw Blue and Snow Geese (*Chen caervlescens*) in the same place with the Swans. The location was a wet weather pond in a large plowed soybean field and a nearby wetweather area of water standing in and flowing through a ryefield. The maximum number was three in this location, but later only 2 were commonly observed here and another was found in a wet-weather pond very close to Pulaski Pike 2 miles South of Columbia. This bird was seen by many from the highway and a photo was taken and published by Jim Finney, Editor of our newspaper, The Daily Herald. The two remaining swans spent most of their time on the Ridley Farm but flew over the area and were absent on some days, being last seen on 16 March. Because our first recorded Whistling Swan was shot 2 years ago (*The Migrant,* 42:33) we were apprehensive about these three who stayed so long, but so far as we know they left the area safely. The Daily Herald was most helpful in urging local citizens not to harm these unusual birds and warning of their protected status. Barbara Finney mentioned the birds in her weekly column "Out Our Window," several times, but we purposely did not publicize their location in the newspaper.

GEORGE MAYFIELD JR., Sunnyside Drive, Columbia 38401.

BRANT (BRANTA BERNICLA) IN SHELBY COUNTY—On 2 March 1974 Jack Moore noted that a waterfowl was different from the usual ducks on the lake at Lakeland, a resort on Interstate 40, east of Shelby County, Tenn. He described it to Nelle Moore and they decided it was a Brant, our

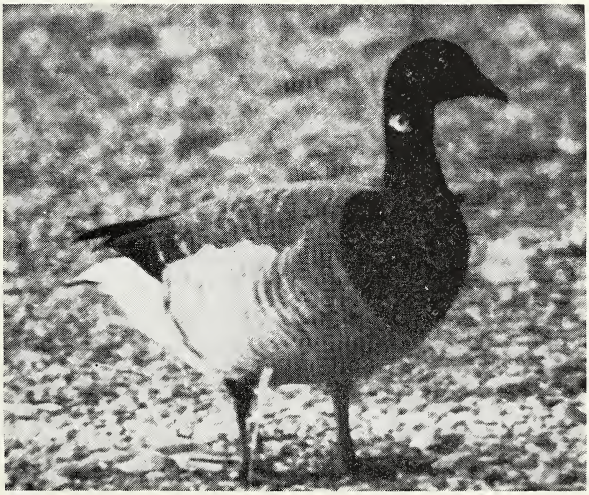

Photo by Paul Crawford

first record for the species. It was coming in, late each afternoon, feeding with the ducks, then flying off. Dr. Marion Moore reported that it apparently remained overnight, from the first week-end in April. The last date it was seen was 28 May. It fed on grasses at the lake's edge and on bread offered by birders who came frequently from Memphis and other parts of the state. Many photographed it. The T. O. McGlothin's, adjacent to the Moore place, were very hospitable to the many birders crossing their yard for a close look. A T.O.S. party on 14 April was led by Nelle Moore and Helen Dinkelspiel. Lula Coffey and the writer viewed the Brant on 26 April. According to our editor this is apparently the fifth record of *Branta bernicla* for Tennessee.

BEN B. COFFEY, JR., 672 North Belvedere, Memphis 38107.

SECOND RECORD OF CINNAMON TEAL IN TENNESSEE.—An adult male Cinnamon Teal (*Anas cyanoptera*) was seen at Cross Creeks National Wildlife Refuge near Dover in Stewart County on 26 March 1974. Members of the Ornithology class of Austin Peay State University found the bird, and viewed it at leasure under ideal lighting conditions and with the aid of spotting scopes from a distance of about 75 yards. The bird was in the company of about a dozen Blue-winged Teal (*Anas discors*), including both males and females. The females were not identifiable as being other than Blue-winged Teal. No female seemed to be keeping company preferentially with the male Cinnamon Teal. Also seen on the same flooded field pool were 3 or 4 shovelers (*Anas clypeata*) and 6 Green-winged Teal (*Anas carolinensis*). The Cinnamon Teal was immediately reported to Refuge Manager Sam Barton, who reports that the bird remained at Cross Creeks for approximately a month after its initial sighting.

The only previous published record of Cinnamon Teal in Tennessee is that of Rauber (*The Migrant,* 43:67) who found a single male on Tennessee National Wildlife Refuge on 10 April 1972, approximately 30 miles south of, and at the same season as, the present record.

DAVID H. SNYDER, Dept. of Biology, Austin Peay State University, Clarksville 37040.

PURPLE GALLINULE NESTING AT GOOSE POND, GRUNDY COUNTY—My first trip to Goose Pond was on 1 June, 1964. On this date my field companions were Ralph T. Bullard, Jr., Roy Evenson and one other young boy.

We worked the marsh over for suitable nesting species. In our search, Ralph was successful in flushing an incubating Purple Gallinule (*Porphyrula martinica*) from its nest of seven eggs. One egg was removed from the nest and was given to John Wallace Coffey, Bristol.

Since that first trip I have tried to make at least one and sometimes more visits during the nesting season, but have never found another Purple Gallinule since that first encounter some ten years ago.

I have also encouraged other field observers that have visited the area during the nesting season to stay alert for the species, however, they too have never found the bird. The Purple Gallinule has nested at Goose Pond in the past, and there is no reason why they should not again in the future as long as the habitat remains the same.

Albert F. Ganier, in his article Goose Pond and its Marsh Birds, (*The Migrant*, Vol. VI, No. 2, page 22-24) reported the species to be nesting.

KENNETH H. DUBKE, Route 1, Box 134-D, Ooltewah 37363.

MARBLED GODWIT AT SAVANNAH BAY, CHICKAMAUGA LAKE—In the Season Report of the December 1970 issue of *The Migrant*, page 88, is a brief notation on a Marbled Godwit (*Limosa fedoa*) being reported from Savannah Bay, Chickamauga Lake. This article provides more details on that observation.

The bird was first observed in the evening of 2 September 1970 as it fed on the shallow mud flats, at the upper end of Savannah Bay, Chickamauga Lake. The bird was easy to identify because of its larger size, tawny color and up-turned bill. The writer is familiar with the species from the coast and out west.

With me on the occasion was my future wife, Lil Richards, and Mr. Hank Dulemba. Later on the Lee Shafer family had an opportunity to leisurely observe the bird at close range and observed all the field marks.

The bird was last observed by me on 6 September at 19:02 hours as it flew straight south in a clear sky.

KENNETH H. DUBKE, Route 1, Box 134-D, Ooltewah 37363.

SANDERLINGS AT THE GALLATIN STEAM PLANT—On 21 August 1971, Bill Sellars, Robert Justice and I were birding in the Gallatin area. At about 10:30 we checked the Gallatin Steam Plant to see if any shorebirds were present. At one of the smaller ash-settling ponds we noticed about a dozen Semipalmated Sandpipers (*Calidris pusillus*) and six Killdeer (*Charadrius vociferus*) and two black and white birds intermediate in size between the Killdeer and "peeps." The birds were observed at a distance of from 20 to 60 feet with binoculars and a Swift Telemaster 15x-60x scope for about 15 minutes. The birds immediately impressed us with their black and white pattern. They had black wings, legs and bill, a light grey back and head and a white eyestripe and underparts. The bill was short and had no curve. We consulted Peterson, Robbins, Collins and Chapman and concluded that we had two Sanderlings (*Calidris alba*) in winter plumage.

We flushed the birds and noticed the white stripe on black wings as depicted by Robbins. After flushing, the birds dropped in with the Semipalmated Sandpipers and the difference in size was readily apparent.

According to Parmer, *Birds of the Nashville Area*, there are only eight records of Sanderlings for the Nashville Area. The earliest date was 22 August 1910. Because of the early record I consulted Lawrence Trabue to see if Sanderlings would be in winter plumage at this date. He concurred that they probably would.

Rev. William Senter, 827 Castle Heights Ext., Lebanon 37087.

NORTHERN PHALAROPE IN UPPER EAST TENNESSEE—While working the Austin Springs area in Washington County during the Elizabethton Chapter's Annual Fall Census on 29 Sept. 1973, a small bird was seen swimming around in short erratic circles in shallow water. The bird was recognized as a phalarope, but which one? It had white below, with a darker back and light head. The back was a very dark grey, almost black looking, with faint lighter looking grey streakings forming a large "X" pattern. The bird had a very thin solid black bill, which was a little longer than the head. There was a black dot on the light face under and behind the eye and the head had a dark stripe all the way down to the back. When the bird came out of the water and started to probe around in the mud, sandpiper style, I noticed the legs were dark colored.

Even though a sudden downpour of rain drenched me, it failed to upset the bird I had by then determined to be a Northern Phalarope (*Lobipes Lobatus*). I kept the bird under constant observation for some thirty minutes with a pair of 7 x 50 binoculars and a 30 x Balscope Senior telescope. The bird came as close as 10 feet to me and was never more than thirty feet away.

On a pre-determined schedule another group of local birders came and agreed on the identity of this most unusual species for our area. The next day several other members of our chapter and I returned and again found the bird and this time it was observed under more favorable weather conditions.

This is only the second record of the Northern Phalarope for our area. The first bird was also found at Austin Springs on 18 May 1969 by Charles Smith and Pete Range (*Migrant* 41:66). Therefore this is the first fall record for the area.

GLEN D. ELLER, Rt. 3, Grandview Terrace, Elizabethton 37643.

HOUSE FINCHES AT KNOXVILLE—On 24 January 1973, at about 15:30, while watching Purple Finches (*Carpodacus purpureus*) at a window feeder at my home, I observed a finch which was noticeably smaller than the Purple Finches yet lacked the sharply pointed bill and yellow patches of a Pine Siskin (*Spinus pinus*). The bird had a brick-red head, brown back, and prominently brown streaked flanks and abdomen. The shade of red differed greatly from that of the male Purple Finches present and was more restricted, being present only on the head, throat, and rump. After consulting *Birds of North America* by Robbins et al (1966), the bird in question was identified as a male adult House Finch (*Carpodacus mexicanus*).

The male House Finch was again observed on 25, 27, and 31 January. On 1 February both a male and a female House Finch was present. The female was identified by its plain brown head, which lacked the white stripes present on the head of the larger female Purple Finch. On 2 February, one female

Photo by Chuck Nicholson

House Finch was present, and on 8 February, a male and female were observed with both Purple Finches and Pine Siskins. In addition to being marked differently from the Pine Siskins, the House Finches were noticeably larger and had a heavier bill. The House Finches were last seen on 8 March, when one male was present. The male was photographed by the author on 1 February.

This is the second known record for the House Finch in the state of Tennessee. For details of the first and information concerning this normally western species' distribution in the East, see *The Migrant* 43:87.

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SOME OBSERVATIONS OF A SPARROW ROOST IN MIDDLE TENNESSEE—During the winter of 1972-1973 I had the opportunity to make some rather interesting observations of a sparrow roost located on the campus of Middle Tennessee State University at Murfreesboro, Tennessee.

My attention was first attracted to the roost on the morning of 14 October 1972. The night before a cold front had passed through the area and the temperature had fallen rather dramatically in a short period. On this morning I heard the chatter of numerous small birds coming from a row of Sugar Maple (*Acer saccharum*) trees, approximately fifty feet in height, adjacent to the R.O.T.C. building. Over the years the trees had been trimmed and the outer foliage was very dense After moving closer to the trees I immediately noticed that the birds in question were sparrows. I clapped my hands together several times and was amazed to see well over 500 birds emerge and fly in all directions, some to other trees and some to the ground. A quick check proved that most of the birds were House Sparrows (*Passer domesticus*) but that there were also other species present. After several minutes I was able to discern both Chipping Sparrows (*Spizella passerina*) and Lark Sparrows (*Chondestes grammacus*), both of which breed on this campus within several hundred yards of these trees. The final count that morning was: House Sparrow approximately 550, Chipping Sparrow 15-20 and Lark Sparrow 6-8. It might be expected that the Chipping Sparrows would go to roost in the trees with the House Sparrows but the Lark Sparrows, essentially ground birds, so doing was a great surprise. It should be noted that I have often seen this small population of Lark Sparrows on the elevated walks and steps around the campus and, occasionally, on the roofs of cars parked in the lots adjacent to the fields in which they nest. After several weeks of warm weather the roost broke up and I could no longer locate either large numbers of House Sparrows or any numbers of the other two species (they had apparently moved south by this time).

In late November and December 1972 I again was able to find a roost on the campus almost every evening that the temperatures dropped into the twenties, especially so when there was an accompanying wind. A favorite location for the roost was several large evergreen bushes growing in a protected corner of the New Science Building. When present the population of House Sparrows never appeared to be below 500 nor above 550 birds.

There appeared to be a general dispersal during the month of January (except during the one period of heavy snow which fell on 7 January 1973) and early February. However, on cold nights in late February I again found the House Sparrows roosting in the evergreens next to the New Science Building. Their numbers ranged from 250-300 and they were again joined by 5-10 Chipping Sparrows. Late March brought the return of the Lark Sparrows to the campus but they were never observed near the roost area which, by this time, was being utilized only by an occasional group of House Sparrows numbering 2-15 birds.

As the above sightings were of some interest to me I asked my friend H. O. Todd, Jr. if he had observed any similar roosts in this area before. He related only one instance, that being in the fall of 1951, during a period of extremely cold weather, when thousands of sparrows, mostly House Sparrows, roosted in the trees surrounding the country courthouse in downtown Murfreesboro.

JON E. DEVORE, 4922 Sarasota Drive, Hixon 37343.

NESTING RECORDS (1974) FROM LAWRENCE COUNTY—I was absent from Lawrence County during most of the nesting season. Most of these observations were made during weekends early in the season. All records are from Five Points unless otherwise indicated; all records are by Morris Williams. Following the date, the contents of the Nest(s) found on that date are given in parenthesis; a (/) separates the contents of nests found on the same date. Common names are taken from the Check-list of North American Birds (*Fifth Edition*) and its Thirty-second Supplement.

Red-tailed Hawk: 6 nests—23 Mar. (2 eggs); 24 Mar. (2 eggs); 13 Apr. (2 eggs/1 egg/1 egg/2 young).

Red-shouldered Hawk: 6 nests—17 Mar. (4 eggs/3 eggs); 24 Mar. (4 eggs/3 eggs); 25 Mar. (3 eggs); 6 May (1 young and 1 broken egg).

American Kestrel: 2 nests—11 Apr. (5 eggs, Summertown); 5 May (5 eggs).

Killdeer: 16 Mar. (nest with egg shells scattered about).

Mourning Dove: 5 nests—16 Mar. (2 eggs); 13 Apr. (1 egg—very small 26 mm x 20.5 mm/2 eggs); 5 May (2 eggs in blue jay nest); 22 Sept. (2 just-hatched young).

Screech Owl: 13 Apr. (3 eggs).

Great Horned Owl: 3 nests—2 Jan (2 eggs); 16 Mar. (1 young); 20 Mar. (1 young).

Downy Woodpecker: 2 nests—5 May (4 young/undetermined no. of young).

Eastern Phoebe: 7 May (5 young, Notchez Trace Parkway).

Rough-winged Swallow: 9 nests—6 May (6 eggs/6 eggs/5 eggs/5 eggs /4 eggs/3 eggs/3 eggs/4 young/1 young and 5 eggs).

Common Crow: 7 nests—23 Mar. (5 eggs/1 egg); 14 Apr. (5 eggs/4 eggs/ 3 young and 1 egg/3 young and 1 dead young); 5 May (adults at nest with several young).

Carolina Chickadee: 2 nests—6 May (5 young/6 young).

Tufted Titmouse: 6 May (6 young).

Carolina Wren: 2 nests—12 Apr. (5 eggs); 7 May (4 young and 1 egg, Laurel Hill Wildl. Manag. Area).

Mockingbird: 5 May (4 eggs, nest under hood of a farm tractor).

Eastern bluebird: 6 May (4 young).

Blue-gray Gnatcatcher: 14 Apr. (adults building 30 ft. in willow).

Loggerhead Shrike: 13 Apr. (5 eggs).

Starling: 4 nests—5 May (4 young); 6 May (5 eggs; 4 young); 7 May (4 young) All eggs and young were destroyed.

Prairie Warbler: 6 May (2 eggs).

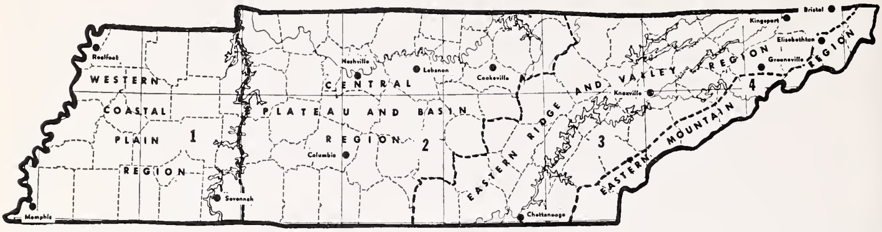
Redwinged Blackbird: 3 nests—7 May (4 eggs/2 eggs/1 egg, latter two nests at Laurel Hill Lake).

MORRIS D. WILLIAMS, Five Points, Tennessee 38457.

CORRECTIONS: Round Table Note "Dark-headed Juncos In Rutherford and Wilson Counties" (DeVore, *The Migrant* 45:54, 1974) lines 16 and 17 are reversed. Round Table Note "Additional Comment On The Genus *Junco*" (DeVore, *The Migrant* 45:55, 1974) in paragraph 1, lines 12 and 13 should be changed as follows: (2) the common name for the enlarged species designation *hyemalis* is changed to Dark-eyed Junco; line 17 should be changed as follows: *J. hyemalis hyemalis* Northern Slate-colored Junco) apparently remain unchanged; in paragraph 2, lines 7 and 8, the statement enclosed in parentheses should follow the word "sighted" in line 10.

THE SEASON

FRED J. ALSOP, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
Columbia
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

NESTING SEASON: 16 MAY-31 JULY

There are many exciting events reported in the following pages and noteworthy records are to be found all across the State! A *Bald Eagle* in adult plumage spent the entire summer on the Duck River National Wildlife Refuge in Middle-west Tennessee. Michael Bierly reports two fifty foot poles with movable wire platforms have been constructed at the Duck River Unit for the purpose of feeding the eagles as a test project.

Bachman's Sparrow was found nesting in West Tenn. and was also reported from two locations in the Eastern Ridge and Valley Region. Every effort should be made to locate this bird in the State next breeding season—make it your personal project for the coming year!

Many shorebirds were reported including an early Ruddy Turnstone record from Kentucky Lake. The Nashville Metropolitan Airport was again searched for possible nesting Upland Sandpipers, but the first individual was not seen until 29 June. Since late June is thought to be the approximate arrival date of fall migrants of this species in the Nashville Area, the current opinion of the investigating party is that the birds seen in this and previous summers are migrants, and not nesting individuals.

Olive-sided Flycatchers were observed on the Cumberland Plateau in May and July at different locations (Morris Williams located the nest of this species—the first known in Tennessee—in Great Smoky Mountains National Park this summer. Details to be published later). Willow Flycatcher nests were again reported in Nashville.

The *Virginia Rail* has previously been known as a nesting bird from only one recorded nest site in the State, but this *Season* lists *five* new nests for the species, all in the Eastern Ridge and Valley Region.

Brown-headed Nuthatches were observed at Fall Creek Falls State Park adding a new location for these birds in Tennessee, and Pine Siskins were seen in mid-June on Roan Mountain in East Tennessee.

Add to these the many nesting records which follow and I think you will agree this has been one of the most interesting of birding seasons in Tennessee.

WESTERN COASTAL PLAIN REGION—*Grebe-Sparrow:* Horned Grebe: 23 May (1) DRU (JL)). Little Blue Heron: 14 July (224) Lake Co. (MLB),

(80) Dyer Co. (MLB, of the 304 total 177 were adults, 117 were white immatures and 10 were pied, 23 June (366) AT (ANS, HHP, JMW). Cattle Egret: 23 June (8) AT (ANS, HHD, JMW). BRANT: last seen 28 May (1) Lakeland, East Shelby Co. (NM). *Mississippi Kite:* 23 June (26) AT (ANS, HHD, JMW). *Bald Eagle:* 31 July (1) adult, DRU (JL). Osprey: 31 July (1) DRU (JL). Golden Plover: 14 July (1) Dyer Co., Mississippi River Levee (MLB). *Ruddy Turnstone:* 28 July (1) earliest TN record Pace Point (MLB, GJ). Spotted Sandpiper: 7 June (1) HWR (JL). Pectoral Sandpiper: 17 July (20) DRU (JL). White-rumped Sandpiper: 23 May (1) DRU (JL). Short-billed Dowitcher: 31 July (3) DRU (JL). Least Tern: 23 June (2) northwest of AT, near Barr (ANS, HHD, JMW). Tree Swallow: 21 June (2) DRU (JL), 21 July (1) Birdsong Creek, Benton Co. (JL). Scarlet Tanager: 21 July (1) Benton Co. (JL). *Lark Sparrow:* 27 May (4) Madison Co. (JL). White-throated Sparrow: 24 May (1) mid-town M (JE). Bachman's Sparrow: 18 July (nest w/2 Y, 2 E), 24 July same nest w/4 Y, Fayette Co. (Charles Nicholson).

Locations: AT—Anderson Tully Wildlife Refuge, Lauderdale Co.; DRU—Duck River Unit, Tenn. Nat. Wildlife Refuge, Hutsburg; HWR—Hatchie Wildlife Refuge; M—Memphis; Pace Point, Big Sandy Unit, Tenn. Nat. Wildlife Refuge.

Observers: MLB—Michael L. Bierly; HHD—Helen and Henry Dinkelspiel; JE—Jack Embury; GJ—Greg Jackson; JL—Jerald Ledbetter; ANS—Arlo and Noreen Smith; JMW—James and Martha Waldron.

MARTHA WALDRON, 1626 Yorkshire Drive, Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Loon-Sandpiper:* Common Loon: 16 May (1) RL (MLM). Great Blue Heron: Approx. 95 nests and 200 adults during summer, DRU (CD). Little Blue Heron: 19 May (1) BV (MLB, CP); 23 July (1) BV (MLM, KAG). Great Egret: 27 May (1) BV (Pat Stallings). Black-crowned Night Heron: 22 June (100) BV (MLB, CP); 30 June (75) BV (MLB). After the nesting season, I visited the Bordeaux Heronry. I saw approximately fifteen skeletons lying on the ground. The cause of death was determined in one bird in which a pellet from a shot gun was found lodged in a hole in the skull—M. D. Williams. Yellow-crowned Night Heron: 30 June and 7 July (1) BV (MLB). Blue-winged Teal: 23 May (1) BV (MLB). *Bald Eagle: 1 adult all summer,* DRU (CD). Semipalmated Plover: 29 May (3, last) BV (MLB). *Upland Sandpiper:* 29 June-31 July (1-2) NMA (MLM). Spotted Sandpiper: 24 May (1, last) NA (MLM). Lesser Yellowlegs: 17 May (1, last) G (DC, PC). Pectoral Sandpiper: 31 July (1) BV (MLB). White-rumped Sandpiper: 22 June (1) BV (MLB). *Baird's Sandpiper:* 16 May (3) G (DC, PC). Least Sandpiper: 7 July (1) BV (MLB, HCM). Dowitcher: 7 July (1) Ashland City Marsh (MLB, HCM). Stilt Sandpiper: 16 May (3) G (DC, PC). Semipalmated Sandpiper: 1 June (25) BV (MLB). Western Sandpiper: 29 May (1) BV (MLB).

Cuckoo-Sparrow: Black-billed Cuckoo: 18 May (1) RL (MLB); 19 May (1) BV (MLB, CP); 8 June (1) NA (KAG). *Willow Flycatcher:* 19 May (1, first) BV (MLB, CP); 30 June (3) BV (MLB); 27 July (2 adults, *nest* with 3 young) BV (KAG). *Olive-sided Flycatcher: 30 July* (1, singing) Savage Gulf, Grundy Co. (TK); 19 May (1) Spring City, Rhea Co. (Fred Alsop—Chester Massey). Horned Lark: only report, 17 June (4) NMA (MLM). *Brown-headed Nuthatch:* 29 July (5) Fall Creek Falls State Park (Don Psitzer, TK). Bobolink: 13 and 19 May (1) BV (MLB). Rose-breasted Grosbeak: 18 May (1, last) Basin Springs (KAG), Dickcissel: 17 June (1) NA (TK); 28 July (5) Old Hickory Lake (Bill and Sally Fintel). *Bachman's Sparrow:* 10 June-July (at least 3, 2 singing males and 1 female) I-40 rest area just west of Crab Orchard exit (TK); 29 July (1, singing) Fall Creek Falls State Park (TK).

Locations: BV—Buena Vista: DRU—Duck River Unit, TNWR; (G—Gallatin; NA—Nashville Area; NMA—Nashville Metro Airport; RL—Radnor Lake.

Observers: MLB—Mike Bierly; DC—Dot Crawford; PC—Paul Crawford (Nashville Area Compiler); CD—Carl Dowdy; KAG—Katherine Goodpasture; TK—Tony Koella; MLM—Margaret Mann; HCM—Harry C. Monk; CP—Chap Percival.

MORRIS D. WILLIAMS, Five Points, Tennessee 38457.

EASTERN RIDGE AND VALLEY REGION—This was a normal season throughout the region. Of note was the *Sharp-shinned Hawk nesting in Campbell County* and a very late Common Loon. More than the usual number of Barn Owl nests were reported. Is this a population increase or is more time spent looking for the owls? The start of the fall shorebird migration was sounded by several reports from 19 July—23 July.

Loon-Kestrel: Common Loon: 28 May (1, winter plumage, injured in migratory accident) Chatt (KD); Pied-billed Grebe: 23 June (1) AM (DRJ); Great Blue Heron: 1-2 thru period at AS (MD, HD, SG); 30 Jun (1) CC (JMC, JCH); Green Heron: 3 nests, 9 young, AlM (MDW); Little Blue Heron: 19-30 May (1) AM (KLD); 5-10 July (1 im) Er. (GW, DL); 10 July (1) SB (KLD); 22 July (3) HRA (DRJ); 28 July (2) CC (JMC, JCH); Cattle Egret: 13 July (1) SeV (LSF); 23 July (3) SB (KLD); Great Egret: 18 and 22 July (3) AM (DRJ); 28 July (1) CC (JMC, JCH); 20 July (1) HRA (KLD); Black-cr. Night Heron: 4 July (1) AM (DRJ); Yellow-cr. Night Heron: 22 May (2 active nests) AM (KLD, RW); Least Bittern: 4 June (1) AM (DRJ); 30 June (1) AM (KD); 2 July (nest, 5 y) AlM (MDW); 4 July (2) AM (DRJ); Mallard: 9 July (14) AM (DRJ); Black Duck: nest, 9 eggs, AlM (MDW); Blue-winged Teal: 14 June (1 male) AM (GLB); American Wigeon: 21 July (1) CC (JMC, JCH); Hooded Merganser: 16 June (1 fresh road kill) near AM (LD); Black Vulture: 20 May (2), 4 June (1) WC near Telford (MD, SG); Sharp-shinned Hawk: 30 June (1); 21 June (1); 28 July (1 ad, 2 young) CC (JMC, JCH); *Cooper's Hawk:* 19 June (1) LV (DRJ) 13 July (2) LV (KLD); Red-shouldered Hawk: 27 May (nest, 1 y banded) MP (KLD, DRJ); Broad-winged Hawk: 25 June (nest, 3 y) TRG (KLD, DRJ); *Osprey: one unsuccessful nest,* Watts Bar Lake (KD); 6 Jul (1) LM (GLB); American Kestrel: 22 May (nest, 5 eggs) AlM (MDW); same nest held 4 young on 3 Jun (CPN); 29 May (3 y out of nest) SeV (LSF).

Rail-Tern: King Rail: 2 nests (8 eggs; 11 eggs) AlM (MDW); 9 July (3) AM (DRJ); Virginia Rail: nest, 9 eggs; nest 7 eggs; nest w/eggs destroyed by fire, Phipps Bend, Hawkins Co., (Fred Alsop, Alan Smith, Dick Lewis); nest, 66 eggs, AlM (MDW) 19 May, nest w/broken (hatched) eggshells, Kingsport (FA); American Coot:: 14 June (1) AM (GLB); Semipalmated Plover: 26 May (1) AS (DJL); American Woodcock: 19 and 23 July (1) LM (GLB); Spotted Sandpiper: 21-23 May (1) AM (KLD); first fall 26 July (1) SB (KLD); Solitary Sandpiper: first 20 July (1) AS (GE, HF); 20 July (1) SB (KLD); 21 July (3) (JMC, JCH); Lesser Yellowlegs: 23 July (6) SB (KLD); Pectoral Sandpiper: 23 July (1) SB (KLD); Least Sandpiper: 21 May (3) AM (KLD); 21 July (5), 28 July (1) CC (JMC, JCH); Semipalmated Sandpiper: 19 May (4), 22 May (1) AM (KLD); 18 July (1) AM (DRJ); Forster's Tern: 27 July (3) SB (KLD); Black Tern: 27 July (2) SB (KLD).

Dove-Sparrow: Mourning Dove: *nest with 2 dove and 3 grackle eggs,* later 1 dove and 1 grackle young, Eliz. (GE); Black-billed Cuckoo: 19 May (1) CC (JMC, JCH); Barn Owl: 29 May (nest, 3 young) SeV (LSF); 3 nests, 12-15 young, K (MDW); 2 nests, JC (GE) Red-headed Woodpecker: 1-3 reg. near ETSU (SG); 1 nest with young, Lenoir City (WJ); Willow Flycatcher: 19 May (1) AM (KLD); 1-4 reg. at AS (GE); 5 nests, AlM (MDW); Horned Lark: 20 May (2) Er. (MD, HD, SG, EO); Cedar Waxwing: 20-21 May (10) Chatt (KD); 19 May (3), 9 June (1) CC (JMC, JCH); 14 and 17 June (2) K (BR); Bobolink: 18 May (1) AM (KLD); Red-winged Blackbird: 89 nests (100% mortality due to high water and other factors) AlM (MDW); Rose-breasted Grosbeak: 28 May (1) LM (GLB); *Bachman's Sparrow:* 17 and 21 July (2) McLemore's Cove, Walker Co., Ga. "seeming to feed young, but no nest or young found; had food in mouth." (GLB and DRJ).

Observers: FA—Fred Alsop; GLB—Gary L. Bayne; JMC—James M. Campbell; MD—Martha Dillenbeck; HD—Helenhill Dove; KD—Ken Dubke; LD—Lil Dubke; KLD—Ken and Lil Dubke; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; JCH—J. C. Howell; DRJ—Daniel R. Jacobson; WJ—Wesley James; DL—Dick Lura; DJL—Dick and Joyce Lura; CPN—Charles P. Nicholson; EO—Elizabeth Osbourn; BR—Bob Rountree; LSF—Lee Shafer Family; GW—Gary Wallace; JW—Jane Whitehead; MDW—Morris D. Williams; RW—Roger Woodruff.

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; CC—Campbell County; Eliz—Elizabethton; Er—Erwin; HRA—Hiwassee River Area; JC—Johnson City; K—Knoxville; LM—Lookout Mountain, Ga.; LV—Lookout Valley; MP—Morse Pond, Ga.; SB—Savannah Bay; SeV—Sequatchie Valley; TRG—Tennessee River Gorge; WC—Washington County.

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EASTERN MOUNTAIN REGION—The weather for the period was "very normal" in all aspects. Several of the more common species had at least two successful hatchings and in some cases a third brood was attempted with apparently good success.

Around the Elizabethton area we are still seeing signs of a Purple Martin decline. What few birds that did arrive and nest this year were very successful, but their overall population numbers are down considerably from past years. Is this trend being observed statewide?

We still need more reports from the lower half of this region in order to give an overall composite picture of the area. Are you really doing "YOUR PART" to help *The Migrant?*

Heron-Creeper: Black-crowned Night Heron: 23 July (1 imm) Wat.R (GE). Bufflehead: (last) 19 May (2) Wil.L (HF). *Wild Turkey:* 29 May (1) IM (SG) Am. Coot: (last) 19 May (1) Wil.L (HF). Solitary Sandpiper: (early return) 20 July (1) GLP (GW). Black-billed Cuckoo: (only spring report) 2 June (1) Wat.L (GE). Barn Owl: 13 June (1) E (GE). Barred Owl: 2 July (1) singing) Hump Mtn. (FWB) 5 July (1) SM (DJ). Yellow-bellied Sapsucker: 6 July (1) SM (DJ). Raven: 16 June (1) RM (DW), 7 July (3) RM (FWB and TMS). Brown Creeper: 22 June (1) RM (DW); 6 July (1) BG (DJ); 7 July (1) WM (DJ).

Gnatcatcher-Sparrow: Blue-gray Gnatcatcher: 22 June (1) HS (GW). Cedar Waxwing: is this another bird on the decline? Cedar Waxwing: 6 July (1) SM (DJ). Prothonotary Warbler: 21 May (1) Milligan College (GW). Swainson's Warbler: 1 June (1) RCP (GE, LRH and HF), 30 June (1) IM (SG). Golden-winged Warbler: 25 May (3) RMSP (FWB and TMS). Black-poll Warbler: 24 May (1) HS (GW). Prairie Warbler: 16 May (1) E (GE). Northern Waterthrush: 24 May (2) HS (GW and GE). Rose-breasted Grosbeak: 6 July (1) SM (DJ); 7 July (2) WM (DJ). Blue Grosbeak: 1 June (1) Powder Branch (GE, LRH and HF). Evening Grosbeak: (last date) 19 May (3) E (GE). *Pine Siskin:* 15 June (5) RM (FWB), 16 June (2) RM (DW), 7 July (3) RM (FWB). Vesper Sparrow: 10 July (2) RM (FWB).

Locations: BG—Beech Gap, Cherokee Nat'l Forest, E—Elizabethton area, GLP—Great Lakes Pond, HS—Hunter Swamp, IM—Iron Mtn., RCP—Rock Creek Park, RM—Roan Mtn., RMSP—Roan Mtn. State Park, SM—Stratton Meadows, Cherokee Nat'l. Forest, Wat.L—Watauga Lake, Wat.R—Watauga River, Wil.L—Wilbur Lake, WM—Whigg Meadows, Cherokee Nat'l. Forest.

Observers: FWB—Fred W. Brehend, GE—Glen Eller, HF—Harry Farthing, SG—Sally Goodin, LRH—Lee Herndon, DJ—Daniel Jacobson, TMS—Tommy and Maxie Swindell, DW—Diane Wilson, GW—Gary Wallace.

GLEN D. ELLER, Rt. #3, Grandview Terrace, Elizabethton 37643.

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The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

MATERIAL: The subject matter should relate to some phase of Tennessee Ornithology. It should be original, factual, concise, scientifically accurate, and not submitted for publication elsewhere.

TITLE: The title should be concise, specific, and descriptive.

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NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and ROUND TABLE NOTES, and should conform to the A.O.U. Check-list 5th edition, 1957 and its Thirty-second Supplement. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

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IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

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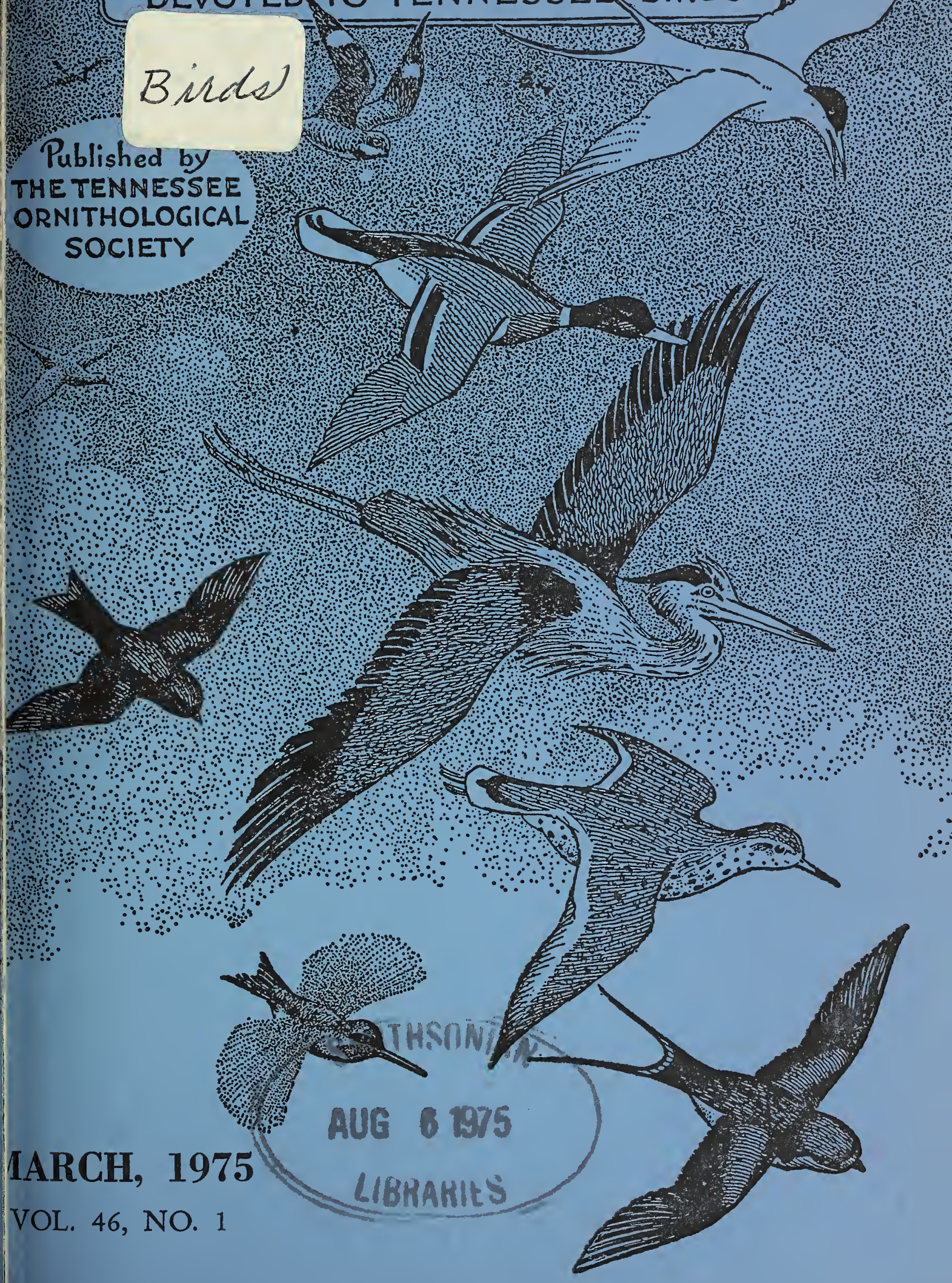
THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Birds

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY



SMITHSONIAN
AUG 6 1975
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MARCH, 1975
VOL. 46, NO. 1

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 46 MARCH, 1975 NO. 1

COMMON GALLINULE NESTING IN EAST TENNESSEE

Morris D. Williams

On 26 May 1970 Fred Alsop and I located a nest containing seven eggs and one downy young in a small marsh at the Powell Airport in Knox County, Tennessee. We were aware that J. C. Howell had found King Rails (*Rallus elegans*) nesting in this area in the early 1950's (Howell and Monroe, 1957). Although we never saw an adult bird around this nest, I doubt that it ever occurred to either of us that we had found anything other than a King Rail nest. Subsequently, Alsop (1970) published a note describing this as the first King Rail nest in Knox County in 18 years (see this article for more details regarding the nest and nest site).

In the years following this discovery, I located and photographed about seven clutches of King Rail eggs in the Alcoa Marshes of Blount County. A comparison of these photographs with those that I had made of the Knox County nest showed that the Knox County eggs had a much darker background color than any of the other King Rail eggs; furthermore the young from the Knox County nest fit the published descriptions of the young Common Gallinule (*Gallinula chloropus*) better than the descriptions of other marsh birds. The young bird as depicted in my photographs had black down which was rather sparse on the crown. The skin at the base of the bill was bright red; the bill was white. The feathers on the chin were orange. The feet and legs were pink, or flesh-colored. Bent (1926) described the downy young Common Gallinule as ". . . nearly bald, the crown being very scantily covered with black hairlike down; the skin at the base of the bill is bright red; the black down on the chin and throat is tipped with curly whitish hairs. . . ." Roberts (1955) described it as, "Black, with curly hair-like feathers on throat and around base of bill tipped with white; top of head largely bare . . . skin about base of bill reddish. Bill red, tipped with black."

To corroborate my reidentification of this nest, I sent copies of the photographs along with all the information I had regarding the nest, including a copy of Alsop's article, to several authorities. A reply from Marshall A. Howe, Acting Chief, Bird Section, U. S. National Museum, dated 13 January 1975, stated in part, "The information supplied is not adequate for us to make a positive identification, but Common Gallinule seems to be the likeliest possibility." Howe was puzzled by the orange feathers on the chin; he questioned whether this color might have been due to egg yolk. A letter from Brooke Meanley, Research Biologist, Bureau of Sport Fisheries and Wildlife, dated 24 January 1975, said, "The photographs are of young gallinules, and probably Common Gallinules. They certainly are not of King Rails." A reply from John Farrand, Jr., Dept. of Ornithology, American Museum of Natural History, dated 18 February 1975 stated in part, "The nest, eggs and downy young in the two photographs are, as you suspected, those of the Common Gallinule . . . the photograph of the newly-hatched young bird leaves no doubt as to the identification. The red flesh at the base of the bill, the light-colored down on the chin, and the fact that the down on the crown is sparse and 'plastered down' are all diagnostic characters of the downy young Common Gallinule." Farrand, too, was puzzled by the color of the down on the chin. In all of the American Museum specimens this down was whitish. Farrand suggested that the color might have faded in the museum specimens. He also suggested that the various published descriptions might have been based on museum specimens. An alternate suggestion was that newly-hatched birds have orange down on the chin which fades to whitish within a few days.

I would appreciate receiving information regarding down color from anyone who has seen newly-hatched Common Gallinules.

The Common Gallinule has been found breeding previously in Tennessee only at Reelfoot Lake. Several records of nests and young exist for that region (Ganier, 1933; Whittemore, 1937; Pickering, 1941; Spofford, 1941; Mengel, 1965:233). In addition, Rhoads (1895:473) considered the "lead-colored dumpy duck," which Benjamin Miles included among the breeding species of the Brownsville area, to be the Common Gallinule.

I have located 14 published records of the Common Gallinule in East Tennessee. Nine of these records were made between 14 April and 20 May (Howell and Monroe, 1957; Comstock, 1961; Nevius, 1963a, 1963b; Owen, 1967; Campbell, 1971 [this date should be 29 April 1971, not 24 April as stated]; Rowell, 1972; Nicholson, 1973). There are three late spring and summer records for the area. Nevius and Nevius (1957) recorded one in Greene County on 10 June 1957. Howell and Monroe (1957) presented two summer records for Knox County, one each on 25 June and 1 July 1950. The two remaining East Tennessee records were made in October (Herndon, 1951; Howell and Monroe, 1957). In the future Common Gallinules should be regarded as possible breeding birds rather than only as migrants or stragglers.

Extreme caution should be exercised in identifying unfamiliar nests when the adult birds are not seen. The importance of photography in field ornithology is once again manifested. Without color photographs this record would never have been uncovered.

I am grateful to the individuals and institutions mentioned who examined my photographs.

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Department of Zoology, University of Tennessee, Knoxville 37916.

* * * * * * * *

CORRECTIONS

The Migrant 45:31, 1974. Line 13 should read 30 October at WSM, not 26 October.

The Migrant 45:58, 1974. Line 21 of Table 1 opposite Tennessee Warbler add the following dates: 5 Oct. (2); 6 Oct. (1, 7); 8 Oct. (1); 15 Oct. (1); 17 Oct. (1).

EASTERN BLUEBIRD NESTING AT ASHLAND CITY, 1974

MARTHA F. HERBERT AND MARY ANN STEPHENS

This report is a continuation of the reports on the nestings of Eastern Bluebirds (*Sialia sialis*) in the Neptune community of Ashland City 1968-1973 by Amelia R. Laskey and Martha F. Herbert.

Nest building started in late March with the first nest being complete on 22 March. On 31 March, there were five eggs in the nest. The last active nest in the fall was on 4 August. The last young for the season were banded on 3 September.

This year there were sixty-nine boxes available for occupation and sixty-seven of these were active sometime during the nesting season of March to September. Twenty of these boxes had three nestings, 34 of the boxes had two nestings and 14 of the boxes had only one nesting. This left two boxes not being occupied at all. One of these was probably empty due to the cats living in the area near by. There is no obvious reason for the other.

In the sixty-seven active boxes, there was a total of 596 eggs laid. Of this number, 408 of the eggs developed young that were banded. This shows a success rate of 67 percent. There were a total of 126 clutches laid and 96 of these were successful. Of the 596 eggs, 575 of them were the usual blue common to bluebird eggs, but 21 of these were pure white. These white eggs were found in five separate clutches, three of the clutches being in the same box. Three of these five clutches were successful, one disappeared completely and the other was abandoned. One nest about the middle of the season contained one small egg about half the size of the three other normal-sized eggs in the nest with it. This egg was the usual blue color natural to bluebird eggs.

There was one nest of Carolina Chickadee (*Parus carolinensis*) producing six young in one bluebird box. Encroachment by the House Sparrow (*Passer domesticus*) was limited to two boxes this year. Both boxes later produced successful bluebird nests. In addition to the 69 boxes available, some of the bluebirds nested in Purple Martin houses in the area. These are not included in the above statistics. One bluebird nest was found in an old Thermos bottle hanging on a porch by the front door. This has been used for several years and this year produced three eggs and three young were banded. There were two instances, in completely different parts of the area included in the report, where clutches of eggs were laid on the bottom of the boxes with no nest at all. Both of these clutches were abandoned and did not hatch.

There were six instances of snake predation on bluebird nests. One box contained two snakes at the same time. Upon checking another box, the snake was found to still be inside. The hole was closed up to prevent the snake from leaving, but it forced the cover from the opening and escaped.

Vandalism to the boxes was not as noticeable this year as in some past. One box was completely removed, post and all, and carried away. At another box young children were suspected of disturbing the nest which was deserted, but there was another successful nest built there later in the season. There was one possibility of insecticide poisoning in a box near a garden where the female and three young were found dead on the nest.

On 8 July, an immature bluebird was observed flying down from a powerline with food in its beak and entering a bluebird box occupied by two nestlings. It then flew away from the box without the material in its beak.

Route 5, Box 167, Ashland City 37015; 1262 Hillwood Drive, Clarksville 37040.

NINTH ANNUAL SYMPOSIUM AND FALL MEETING TENNESSEE ORNITHOLOGICAL SOCIETY

10-11-12 OCTOBER, 1975

HOLIDAY HILLS RESORT, CROSSVILLE, TENNESSEE 38555

Thirty-two rooms with two double beds each are reserved. A few cabins are also being held at Cumberland State Park. TOS members should make their own individual reservations. To be sure you get accommodations make your reservations early. Be sure to state that you are with TOS. All meetings will be at Holiday Hills Resort. Holiday Hills Resort ph. 484-1017; Cumberland State Park ph. 484-6138.

11 October, Saturday

08:00 — Field trip from Holiday Hills parking lot.
13:30-15:00 — Board of Directors Meeting.
15:00-17:00 — Paper session.
17:30-19:00 — Supper.
19:00-22:00 — Paper session.

12 October, Sunday

08:00 — Field trip from Holiday Hills parking lot.

For further details about the meeting contact Kenneth H. Dubke, Route 1, Box 134-D, Ooltewah, Tennessee 37363 or George R. Mayfield, Jr., Maury County Hospital, Columbia, Tennessee 38401.

THE 1974 CHRISTMAS BIRD COUNTS

MORRIS D. WILLIAMS

Approximately 375 observers participated in 24 organized counts across the state between 14 December 1974 and 5 January 1975 during the 44th annual Christmas Bird Count in Tennessee. About 15 million birds representing 131 species were recorded. The species total is the third highest ever recorded in Tennessee on the Christmas Counts.

The Yellow-breasted Chat and the Indigo Bunting appear on the Christmas Counts for the first time. Both of these species, however, have been recorded previously in Tennessee in the winter.

Counts were conducted in Ashland City and Manchester for the first time this year. For the first time in recent years a count was not made at Savannah.

In some instances in order to fit the data into the columns, I have rounded the figures and used symbols.

One should realize that the high numbers of Starlings, blackbirds, and Common Grackles are crude estimates and are subject to a high degree of error.

As usual the counts are tabulated in the order of their occurrence from west to east across the state.

INFORMATION ON THE COUNTS

MEMPHIS—15 Dec.; 06:30 to 17:00; mostly clear; temp. 43° to 51°; wind NW, 0-7 mph; 25 observers in 8 parties. 58 party-hours (38 on foot, 20 by car); 142 party-miles (41 on foot, 101 by car).

LeConte's Sparrow by BBC. Harris' Sparrow by NS.

Seen in count period: Rough-legged Hawk, House Wren.

David Brown, Tiny and Ed Carpenter, Lula and Ben B. Coffey (compilers—672 N. Belvedere, Memphis 38107), Julian Darlington, Mary Davant, Fred Dickson, Helen and Henry Dinkelspiel, Frances Dowdy, John Embury, Billy Grimm, Lee Johnson, Allan Larrabee, Jerald Ledbetter, Ernest Restivo, Harry Sayle, Alice Smith, Arlo and Noreen Smith, Richard Taylor, Martha Waldron, Wendell Whittemore, Richard Whittington.

REELFOOT—21 Dec.; 07:00 to 16:30; clear; temp. 35° to 50°; wind NW, 7-12 mph; 12 observers in 6 parties; 50 party-hours (16 on foot, 29½ by car, 4½ by boat) plus 1 observer at feeder for 4 hours; 363 party-miles (22 on foot, 329 by car, 12 by boat).

White-fronted Goose by Mannings. Rough-legged Hawk by GM and BS. Common Yellowthroat by GL. Indigo Bunting by DP.

Seen in count week: Osprey, Common Snipe, Fish Crow (3 identified by call by DM, I omitted two Fish Crows from the count because they were identified by size alone—MDW), Vesper Sparrow.

THE 1974 CHRISTMAS BIRD COUNTS

	Memph	Reelf	Dover	Clark	Lawre	Ashla	Colum	Nashv	Spring	Hicko	Murfr	Leban	Manch	Cooke	Chatt	Hiwas	Norri	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Common Loon	--	--	--	--	--	--	--	--	--	25	--	--	3	--	3	--	--	2	--	--	2	1	8
Horned Grebe	--	--	--	--	1	--	--	1	--	289	--	--	30	--	29	--	--	8	--	--	2	7	8
Pied-billed Grebe	4	9	9	7	3	1	6	6	8	64	4	7	42	--	15	--	--	18	--	--	24	7	29
Dbl.-cr. Cormorant	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	--	--	--	--
Great Blue Heron	--	10	40	3	--	14	5	--	--	6	--	10	2	--	6	130	2	48	--	4	33	--	16
Green Heron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--
Bl.-cr. Night Heron	--	--	--	--	--	--	1	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--
Canada Goose	--	15.6M	2.5M	18	--	--	2	2	7	165	--	662	5	--	41	2.2M	1	9	--	29	6	--	6
Wht.-fr. Goose	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Snow Goose	--	12	8	--	--	--	--	--	--		--	--	--	--	--	2	--	--	--	--	--	--	--
S. Goose (blue morph)	--	40	--	--	--	1	--	--	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--
Mallard	16	78M	10M	13	35	600	67	--	--	231	4	5.9M	29	--	8	100	7	7	--	5	699	36	67
Black Duck	--	3.2M	250	3	--	50	4	--	2	6	--	1.4M	15	--	30	150	--	18	--	--	400	3	17
Gadwall	2	6.8M	250	31	--	--	14	--	--	15	5	262	34	--	--	--	--	2	--	--	--	--	--
Pintail	--	200	75	--	--	--	--	--	--	--	2	70	--	--	--	25	--	--	--	--	1	--	--
Green-winged Teal	--	125	20	1	--	--	4	--	--	--	2	300	--	--	--	--	--	--	--	--	--	--	1
Blue-winged Teal	--	15	--	--	--	--	--	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--
American Wigeon	--	8M	200	25	--	--	--	--	--	11	--	475	41	--	--	15	--	--	--	--	6	10	--
Northern Shoveler	4	800	--	--	--	--	--	--	--	4	--	10	3	--	--	--	--	1	--	--	--	--	--
Wood Duck	19	60	--	--	--	2	2	--	--	4	--	12	7	--	11	--	--	5	--	--	5	5	2
Redhead	--	40	--	--	--	--	--	--	--	--	--	4	2	--	--	--	--	--	--	--	--	--	--
Ring-necked Duck	--	4.8M	1	27	--	--	42	18	--	--	36	950	--	--	--	--	--	52	--	--	75	212	--
Canvasback	--	60	--	--	--	--	--	--	--	20	--	30	--	--	--	--	--	1	--	--	2	--	--
Greater Scaup	--	--	--	--	--	--	2	--	--	--	--	--	--	--	62	--	--	--	--	--	--	--	--
Lesser Scaup	71	300	--	--	8	--	16	34	--	56	60	--	110	--	42	--	--	5	--	--	6	4	--
Scaup sp.	--	--	--	--	--	--	--	--	--	--	--	40	--	--	--	--	--	--	--	--	--	--	--
Common Goldeneye	--	20	--	--	1	--	--	--	--	14	--	--	--	--	2	15	4	--	--	--	7	--	--
Bufflehead	--	35	--	--	--	--	3	25	--	2	-	--	35	--	--	30	--	3	--	--	--	67	--
Ruddy Duck	3	600	3	--	--	--	2	--	--	--	--	--	6	--	--	--	--	--	--	--	--	--	--
Hooded Merganser	--	120	125	--	--	--	--	--	--	--	--	6	100	--	120	--	--	--	--	--	2	2	8
Common Merganser	--	5	2	--	--	--	--	--	--	1	--	--	--	--	--	--	3	--	--	--	2	--	21
Red-br. Merganser	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	31	--	--
Turkey Vulture	--	4	27	27	17	51	--	--	24	--	--	3	10	1	2	20	--	--	1	5	--	--	1
Black Vulture	--	5	140	35	3	3	230	55	4	1	4	1	5	--	--	25	--	--	--	2	--	--	--
Sharp-sh. Hawk	--	--	1	--	--	--	--	1	--	1	--	2	1	--	--	1	1	1	--	--	--	--	1
Cooper's Hawk	--	--	--	1	--	2	--	2	--	--	--	--	--	--	--	--	--	--	--	2	3	1	1
Red-tailed Hawk	43	25	5	9	7	5	14	24	13	12	1	5	2	2	19	5	1	8	3	3	5	4	5
Red-sh. Hawk	1	9	1	8	2	8	1	2	2	--	2	--	--	--	4	1	1	--	--	--	1	1	--
Rough-leg. Hawk	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden Eagle	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Memph	Reelf	Dover	Clark	Lawre	Ashla	Colum	Nashv	Spring	Hicko	Murfr	Leban	Manch	Cooke	Chatt	Hiwas	Norri	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Bald Eagle	--	39	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--
Marsh Hawk	5	2	2	6	5	1	1	2	1	2	1	1	--	--	1	1	--	--	--	--	--	--	--
American Kestrel	2	16	2	18	11	14	13	34	41	30	15	11	26	2	16	5	5	15	2	3	4	11	15
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	4	--	1
Bobwhite	56	24	--	137	86	24	22	40	43	4	1	73	1	10	19	--	--	37	--	28	32	34	--
Turkey	--	2	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	5	6M	3	--	--	--	940	33	--	313	35	76	214	--	27	5	--	397	--	3	11	2	5
Killdeer	79	13	25	58	34	--	9	55	13	137	20	22	5	--	61	200	3	44	1	36	37	44	14
Am. Woodcock	--	--	--	--	--	--	2	--	--	--	1	--	--	--	3	--	--	--	--	--	--	--	--
Common Snipe	73	--	15	42	6	--	--	1	21	9	7	--	--	--	17	3	--	8	--	--	1	1	2
Least Sandpiper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34	--	--	--	--	--	--	--
Dunlin	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	--	--	--	--	--
Herring Gull	--	41	--	--	--	--	--	--	--	22	--	58	150	--	6	--	--	2	--	--	--	--	--
Ring-billed Gull	--	229	--	--	--	--	--	--	--	236	--	--	25	--	106	10	--	4	--	--	2	--	--
Bonaparte's Gull	--	3	--	--	--	--	--	--	--	251	--	--	--	--	--	2	--	--	--	--	--	--	--
Rock Dove	1	4	3	18	15	20	23	92	35	112	--	75	15	9	14	20	--	222	--	--	131	61	14
Mourning Dove	90	69	5	169	150	50	38	143	83	145	12	268	90	240	153	35	46	296	63	232	178	150	560
Barn Owl	--	--	--	--	--	--	1	--	--	--	--	2	--	--	--	--	--	--	--	2	2	--	1
Screech Owl	--	1	1	--	2	--	6	4	--	3	--	4	--	5	2	--	--	1	1	--	4	7	--
Great Horned Owl	1	3	--	2	1	3	7	2	3	--	2	3	--	--	1	--	--	--	--	1	4	--	1
Barred Owl	2	13	--	--	1	--	4	2	1	--	--	3	--	2	--	--	--	--	--	--	--	--	--
Belted Kingfisher	--	4	10	13	8	7	9	20	5	12	1	11	4	--	7	3	3	20	17	2	11	26	9
Common Flicker	149	70	7	36	30	19	29	75	17	53	18	21	7	12	37	6	5	21	10	7	11	12	8
Pileated Woodpecker	10	30	1	15	12	12	17	42	12	5	--	4	1	6	8	1	3	3	19	3	14	8	2
Red-bel. Woodpecker	69	67	5	61	30	16	53	90	26	19	10	17	4	20	9	5	1	20	6	2	25	3	4
Red-hd. Woodpecker	8	10	--	2	2	2	3	6	11	--	--	2	2	--	8	--	--	--	--	--	--	--	--
Yel.-bel. Sapsucker	25	14	1	21	6	3	14	37	4	14	10	7	4	--	20	1	5	11	7	1	1	11	2
Hairy Woodpecker	17	8	2	9	5	5	12	18	4	2	--	5	5	1	6	1	--	6	11	--	6	5	--
Downy Woodpecker	46	46	15	38	16	10	48	104	25	26	11	18	1	20	11	1	3	31	41	4	25	44	20
Eastern Phoebe	--	5	--	3	6	--	1	2	--	--	--	--	--	--	1	--	3	--	16	3	2	8	3
Horned Lark	48	81	--	--	27	--	2	16	12	7	--	23	--	--	6	--	--	10	--	1	--	8	5
Blue Jay	229	72	40	197	206	49	63	201	174	94	71	172	49	64	92	15	33	154	71	55	77	93	93
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--
Common Crow	73	92	48	289	183	135	87	280	82	110	27	133	546	42	114	525	383	240	133	55	233	348	172
Blk.-cap. Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	*	--	--	--	--
Carolina Chickadee	211	159	40	108	52	8	105	320	55	110	34	146	20	37	77	40	36	129	*	28	149	219	44
Tufted Titmouse	60	45	25	86	38	3	80	159	32	62	18	126	28	59	18	15	11	36	104	42	117	116	36
White-br. Nuthatch	2	7	4	2	1	--	--	21	2	1	1	3	1	13	5	1	4	4	35	1	15	28	1
Red-br. Nuthatch	3	--	--	--	2	--	1	1	--	2	1	--	--	2	1	--	--	--	35	--	6	4	--
Brown Creeper	14	5	--	6	8	1	3	8	7	3	4	2	1	2	6	4	--	5	7	--	5	12	2
House Wren	--	--	--	--	--	--	1	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Winter Wren	20	27	--	7	6	--	2	3	--	2	--	--	--	2	6	--	--	4	21	1	3	9	--
Bewick's Wren	--	--	--	3	1	--	2	7	--	1	--	5	--	--	--	--	--	--	--	1	--	--	--
Carolina Wren	148	65	9	57	30	6	32	111	22	67	24	17	8	20	59	14	15	107	87	19	55	109	25
Lg.-bil. Marsh Wren	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--

	Memph	Reelf	Dover	Clark	Lawre	Ashla	Colum	Nashv	Spring	Hicko	Murfr	Leban	Manch	Cooke	Chatt	Hiwas	Norri	Knoxv	GSMNP	Green	Kings	Eliza	Brist
Mockingbird	160	17	6	97	107	5	65	237	97	128	176	89	23	20	55	15	44	102	10	26	72	28	36
Brown Thrasher	12	3	--	1	6	--	8	6	--	7	10	7	1	8	15	2	--	2	2	1	4	1	--
Robin	317	12	7	107	52	30	2M	400M	44	4802	597	3.9M	3	8	717	350	7	29	112	111	47	21	9
Hermit Thrush	10	23	3	4	10	1	2	8	--	6	--	--	--	--	6	1	1	--	6	--	--	4	1
Eastern Bluebird	23	5	15	74	56	15	41	75	30	15	2	70	4	22	25	50	37	9	53	3	9	39	11
Golden-cr. Kinglet	43	7	2	23	16	13	3	35	8	36	--	--	--	12	29	40	23	70	186	2	30	58	25
Ruby-cr. Kinglet	64	35	2	22	39	9	11	27	3	20	1	8	8	4	73	20	17	18	31	4	6	17	8
Water Pipit	--	--	3	--	--	--	--	--	--	--	--	--	--	--	1	36	--	--	--	--	--	--	--
Cedar Waxwing	--	1	--	--	--	8	--	65	--	80	7	407	9	--	296	20	--	64	122	5	16	--	--
Loggerhead Shrike	8	18	4	13	25	9	13	26	15	4	3	9	5	1	4	3	3	8	--	4	4	3	1
Starling	41.9M	380M	150	1.4M	2.3M	900	356M	200M	IX	8.7M	M	1.4M	470	2.5M	1.5M	1.2M	260	7.4M	166	250	780	2.1M	3.4X
Yel.-rumped Warbler	142	51	3	11	13	10	16	41	--	11	1	2	--	4	149	25	4	69	11	11	17	36	1
Pine Warbler	1	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	--	2	1	--	--	--	--
Palm Warbler	--	--	--	--	--	--	1	--	--	--	1	5	--	--	--	--	--	--	--	--	--	--	--
Com. Yellowthroat.	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow-br. Chat	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
House Sparrow	162	370	30	128	134	2	183	72	178	89	M	193	26	62	56	5	4	85	87	49	187	122	76
Eastern Meadowlark	216	91	35	115	190	61	96	269	241	135	33	236	246	80	90	35	6	106	23	60	107	98	90
Red-wing. Blackbird	2.3M	1.8X	500	574	715	56	1.8M	370	15M	74	41	--	1.1M	--	859	2	--	265	3	1	1	--	450M
Rusty Blackbird	10	24	100	--	97	--	286	120	30M	11	132	--	--	12	161	--	--	250	--	--	--	--	150M
Brewer's Blackbird	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	6.0M	806M	50	3M	8.6M	521	508M	3.1M	950M	389	70	77	3.7M	43M	916	150	17	37	--	--	10	31	3.4X
Brown-hd. Cowbird	1.2M	96M	12	41	445	30	2M	26	5M	94	7	137	--	110	389	75	--	20	--	--	1	--	150M
Cardinal	545	165	35	358	220	168	203	520	137	162	8	337	45	134	92	20	97	205	137	52	145	94	101
Indigo Bunting	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dickcissel	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	277	--	--	--	--
Purple Finch	125	2	20	66	74	8	135	275	34	135	116	245	2	40	82	30	8	174	79	3	105	8	18
Pine Siskin	--	--	--	--	--	--	--	11	--	--	8	--	--	--	--	--	1	--	10	--	--	12	2
American Goldfinch	115	149	20	147	183	12	39	442	13	76	13	33	1	9	107	20	43	77	96	46	63	123	31
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44	--	--	--	--
Rufous-sid. Towhee	120	6	5	78	80	3	69	114	13	48	44	47	10	63	51	8	15	73	32	8	25	110	5
Savannah Sparrow	198	--	1	3	12	8	10	--	30	3	--	1	--	--	12	4	--	27	--	2	--	3	--
LeConte's Sparrow	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dark-eyed Junco	742	381	45	378	243	108	82	648	118	202	36	273	48	17	188	45	96	159	157	10	161	114	133
Tree Sparrow	--	41	--	6	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Field Sparrow	274	123	35	123	225	54	141	147	182	61	29	128	16	68	55	45	48	92	64	76	85	24	38
Harris' Sparrow	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
White-cr. Sparrow	9	63	--	1	60	8	72	55	17	10	15	52	11	2	15	--	2	15	--	30	34	6	13
White-th. Sparrow	1.3M	354	80	180	108	108	347	326	44	206	45	290	22	120	435	75	98	598	253	52	292	187	64
Fox Sparrow	108	46	2	18	--	1	4	2	8	7	22	--	--	2	5	--	--	--	3	1	--	--	1
Lincoln's Sparrow	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Swamp Sparrow	202	208	20	160	27	14	20	32	6	50	1	--	--	10	40	15	--	4	--	--	--	17	1
Song Sparrow	304	104	10	120	102	72	57	156	65	189	8	175	7	17	79	20	85	190	179	57	127	69	64
No. of Species	68	95	70	70	67	58	78	72	60	79	63	75	64	47	78	69	47	71	51	54	74	66	67

M=1,000
* = a total of 264 chickadees of both species were seen.

Fourteen of the Bald Eagles were immature.

Wendell Crews, Gerald Ledbetter, Don and Gina Manning (compilers—103 Stonewall Circle, McKenzie 38024), David Pitts, Alice Smith, Arlo and Noreen Smith, Harry Smith, Martha Smith, Bettie Sumara, Martha Waldron, Richard Wallace.

DOVER—31 Dec.; 06:30 to 16:00; cloudy with showers; temp. 56° to 64°; two observers in 1 party; 74 party-miles (72 by car, 2 on foot).

Seen in count period: Redhead, Canvasback, Barred Owl, Pine Siskin.

John W. Sexton (compiler—Route 1, Dover 37058), Gary O. Wallace.

CLARKSVILLE—21 Dec.; 06:45 to 16:30; mostly clear; temp. 30° to 50°; wind SW, 5-10 mph; 21 observers in 5 parties; 44 party-hours (21-2/3 on foot, 22½ by car) plus 12 observers at feeders for a total of 12 hours; 279 party-miles (19 on foot, 260 by car).

Joe Allen, Andy Barrass, Gabriele Black, David Chiles, Adney Cross, Mike Dinsmore, Mike Filson, Floyd Ford, Scott Gunn, Jerold Harris, Nita Heilman, Kathy Lee, Tony Mahoney, James Majors, Bill and Gloria Milliken, Millie Perry, David Snyder (compiler—Dept. of Biology, Austin Peay State Univ., Clarksville 37040), Juanita Snyder, Mary Ann Stephens, Juaquin Walling.

LAWRENCE COUNTY—26 Dec.; 07:00 to 17:00; mostly cloudy with light rain in p.m.; temp. 25° to 37°; wind, light and variable; 11 observers in 4 parties; 42 party-hours (15 on foot, 27 by car) plus 1 observer at feeder for four hours; 190 party-miles (13 on foot, 177 by car).

Lloyd Clayton (compiler—Route 4, Box 175A, Lawrenceburg 38464). Helen Clayton, Tom Hull, David Ihrie, George Mayfield, Jr., Delton Porter, Paul Porter, Ralph Ring, Don Simbeck, Morris Williams, Wylie Willis.

ASHLAND CITY—(new count) 36° 19'N, 87° 7'W, centered at bridge on state hwy. 12 over Sycamore Creek, 4 miles NW of Ashland City Court House. Habitat coverage: lakes and riversides 30%, brushy fields 20%, cultivated fields 18%, woodland 16%, pastures 6%, swamps 7%, residential 3%.

21 Dec.; 06:00 to 18:30; clear; temp. 25° to 45°; wind SSW, 5-15 mph; 6 observers in 4 parties; 49½ party-hours (43 on foot, 6½ by car); 50 party-miles (18 on foot, 32 by car).

Seen count week: Sharp-shinned Hawk, Long-eared Owl, Horned Lark, White-breasted Nuthatch.

Craig Empson, Johnny Herbert, James Holt, Richard Holt, Robert Milburn, Rocky Milburn (compiler—R. R. 1, Hwy. 49, Ashland City 37015).

COLUMBIA—28 Dec.; 05:00-22:00; overcast; temp. 45° to 52°; wind, E, 0-5 mph; 13 observers in 4 parties (1 at feeder); 28 party-hours (20 on foot, 8 by car); 201 party-miles (18 on foot, 183 by car).

Seen in count period: White-breasted Nuthatch, Cedar Waxwing, Vesper Sparrow.

Kenneth Anderson, Ed Byassee, Barbara Finney, William Fugua, Dan Gray, Jr. (compiler—Maury County Hospital, Columbia 38401), Mark Mayfield, Rad Mayfield III.

NASHVILLE—28 Dec.; 06:00 to 21:00; overcast, intermittent light rain; temp. 40° to 48°; wind NW, 4 mph; 34 observers in 13 parties; 102 party-hours (36 on foot, 66 by car) plus 6 observers at feeders for a total of 48 hours; 353 party-miles (36 on foot, 317 by car).

Yellow-breasted Chat carefully identified by William and Lucy Finch. Seen count week: Mallard, Common Goldeneye.

Clyde and Vivian Anderson, Sue Bell, Michael Bierly, Ruth Castles, Elizabeth Collins, Paul and Dot Crawford, Annella Creech, Milbrey Dugger, Mrs. Nelson Elam, John and Evelyn Ellis, Lou and Louann Farrell, William and Lucy Finch, Katherine Goodpasture, Ben Groce, John Herbert, Louise Jackson, Margaret Mann, Randy Martin, Oscar and Marjorie Patrick, Shirley Patterson, Win Shaughnessy (compiler—6413 Currywood Dr., Nashville 37205), Pat Stallings, Anna Thomas, Mr. and Mrs. Kenneth Walkup, Virginia Workman.

SPRINGFIELD—22 Dec.; 06:30 to 18:30; clear; temp. 30° to 56°; wind SE, 5-15 mph; 17 observers in 10 parties; 47 party-hours (9 on foot, 38 by car); 221 party-miles (10 on foot, 211 by car).

Seen count period: Cedar Waxwing.

Nancy and Richard Coleman, Robert Fitz, Mr. and Mrs. J. Gunn, James Holt (compiler—Box 250, Springfield 37172), Richard Holt, Robert Holt, Irene Johnson, Mr. and Mrs. George Laughlin, Charles Ralph, Russell Sawyers, Betty and Odis Swallows, Barbara and Jack Werner.

HICKORY-PRIEST—21 Dec.; 04:00 to 17:00; clear, temp. 31° to 52°; wind SW, 0-20 mph; 16 observers in 6 parties; 56 party-hours (20 on foot, 28 by car, 8 by boat) plus 3 observers at feeders for a total of 5 hours; 219 party-miles (21 on foot, 183 by car, 15 by boat).

Seen count week: Barred Owl.

Vivian Anderson, Sue Bell, Michael Bierly (compiler—2415 Crestmoor Rd., Nashville 37215). Annella Creech, Milbrey Dugger, Charles Farrell, Sally Fintel, William Fintel, Carol Knauth, Margaret Mann, Randy Martin, Elizabeth Murray, Marge and Oscar Patrick, Virginia Price, Betty Richards, Pat Stallings, Ann Tarbell, Lawrence Trabue.

MURFREESBORO—28 Dec.; 08:00 to 17:00; overcast, intermittent showers, windy; temp. 45° to 50°; two parties by car, 110 miles; one party on foot; 20 feeder observers.

Dickcissel seen by Alberta Spence and later by Anne Hettish.

Josephine Cantrell, Patrick Doyle, Cleo Edwards, Lou Erwin, Helen Greever, Edith Haynes, Anne Hettish (compiler—108 Lawndale, Murfreesboro 37130), Bob Hettish, Linda Johnson, Maxie Jones, Pat Martin, Maud McClain, Ruth Odum, Elizabeth Pendleton, Alberta Spence.

LEBANON—21 Dec.; 06:00 to 22:00; clear; temp. 38° to 52°; wind W, 5-20 mph; 10 observers in 9 parties; 33½ party-hours (17½ on foot, 15½ by car, ½ by airplane) plus 12 observers at feeders for a total of 15 hours; 305 party-miles (13 on foot, 247 by car, 12 by airplane).

I omitted 2 Broad-winged Hawks from the count after talking with the observer who agreed that she could have been in error—MDW.

Seen count week: Ring-necked Pheasant, American Woodcock, Common Snipe, Red-winged Blackbird, Rusty Blackbird, Fox Sparrow, Swamp Sparrow.

Mrs. R. L. Bain, Mr. and Mrs. Vernon Bailey, Margaret Bouton, Lucille Chambers, Mr. and Mrs. Ed Cunningham, Bobby Gamble, Mildred Gaston, Marjorie Loyd, Mr. and Mrs. Reid McKee, Mr. and Mrs. Charles Osborne, Ray Pope, Nina Reed, Bill Sellars, John Sellars, Loula Mae Sellars, Rev. William Senter (compiler—313 West Hills Drive, Lebanon 37087), Mr. and Mrs. W. A. Smith, Grace Speck, George Suddarth, Willie Taylor, Tressa Waters, Mary Wharton, Dr. and Mrs. Dean Wilkinson.

MANCHESTER—22 Dec.; 07:00 to 16:30; clear; temp. 30° to 56°; wind NE, 0-15 mph; 12 observers in 4 parties; 22½ party-hours (6 on foot, 16½ by car); 267 party-miles (11 on foot, 255 by car).

Carroll Barr, Stanley Barr (compiler—Rt. 2, Box 475A-1, Estill Springs 37330), Becky Bingham, Ron Bingham, David Boyd, Effi Boyd, Marjory Harper, Dennis Horn, Ruth Luckado, Susi Millaney, Sanford McGee, Monty Wanamaker.

COOKEVILLE—27 Dec.; 08:00 to 16:00; rainy; temp. 45° to 55°.

Beulah Clark, Dr. and Mrs. J. O. Cummings, Ernest Halzhauser, R. D. High, Mr. and Mrs. Frazier Jacques, Amy Johnson, Dr. and Mrs. Sidney McGee, M. R. Richmond (compiler—519 N. Jefferson Ave., Cookeville 38501), Roy Sullivan, Thelma Tinnon, F. R. Toline.

CHATTANOOGA—22 Dec.; clear; temp. 30° to 60°; wind, 0-10 mph; 15 observers in 7 parties, plus 6 observers at feeders; 72 party-hours (42 by foot, 30 by car); 606 party-miles (38 by foot, 568 by car).

David and Lloyd Anderson, Christine and Gary Baynes, Daniel Beckner, David Beckner, Buster Boswell, Jon and Nancy DeVore, Ken and Lil Dubke (compilers—Route 1, Box 134 D, Ooltewah 37363), Jonathan Gibson, Chris Haney, Frank Hixon, Daniel Jacobson, Lemuel Jacobson, Jack and Ruth Lothers, J. Hunter Patterson, Lee Shafer, Mary Tunsberg.

HIWASSEE—1 Jan.; 08:00 to 16:00; cloudy, intermittent rain in a.m., clear p.m.; temp. 58° to 50° in p.m.; wind N, 5-20 mph in p.m.; 3 observers in 1 party; 8 party-hours (5 on foot, 3 by car); 50 party-miles (5 on foot, 45 by car).

Jon E. DeVore (compiler—4922 Sarasota Drive, Hixon 37343), Nancy A. DeVore, Lillian Dubke.

NORRIS—22 Dec.; Greater Knoxville Area Audubon Chapter Members, Mrs. Don Hammer (compiler—809 Medaris St., Clinton 3-716).

KNOXVILLE—15 Dec.; 06:45 to 17:30; overcast, intermittent rain; temp. 34° to 50°; wind, variable, 0-40 mph; 10 observers in 7 parties; 57½ party-hours (33½ on foot, 24 by car); 252 party-miles (30 on foot, 222 by car).

John Elson, J. C. Howell, Terry McGown, Gary Muffly, Holly Overton, Boyd Sharp, Johneta and Louis Smith, James T. Tanner (compiler—Route 28, Box 155, Knoxville 37920), Morris Williams.

GREAT SMOKY MOUNTAINS—29 Dec.; 16:45 to 17:30; overcast to partly cloudy; temp. 42° to 59°; wind, variable, 1-7 mph, up to 35 mph at higher elevations in a.m.; 25 observers in 11 parties; 83 party-hours (37 on foot, 46 by car) plus 2 observers at feeders for a total of 14 hours; 309 party-miles (44 on foot, 265 by car).

Winnifred Brown, James Campbell, Glenn Cardwell, Don DeFoe (compiler—Headquarters, G.S.M.N.P., Gatlinburg 37738), Jay DeFoe, Lori DeFoe, Elizabeth French, James Graves, Maurice Grigsby, Joseph C. Howell, Bruk McDonald, Boyd Sharp, Jr., Johneta Smith, Louis Smith, Arthur Stupka, James Tanner, Joe Watson, Clara Mae Wodtke, Bill Williams, Irene Williams.

GREENEVILLE—5 Jan.; 08:00 to 18:00; clear; temp. 22° to 45°; wind, 0-6 mph.

O. C. Armitage, B. Barnes, Mrs. Collins, Mrs. Charles Earnest, Mr. and Mrs. William Fischer, Mr. and Mrs. King Gaut, S. B. McGuire, Richard Nevius (compiler—Route 6, Greeneville 37743), Helen Reed, Dr. and Mrs. Royal B. Spees.

KINGSPORT—28 Dec.; 07:30 to 21:00; overcast to partly cloudy, intermittent rain; temp. 42° to 46°; wind N, 0-25 mph; 14 observers in 12 parties; 54 party-hours (40 on foot, 11 by car, 2 in motorboat, 1 in canoe) plus 2 observers at feeders for a total of 6 hours; 142 party-miles (42 on foot, 80 by car, 20 by boat).

Green Herons were seen by Eugene Scott and Tom Gannaway in different localities.

Roy Allen, Tom Bowman (compiler—Bays Mt. Park Nature Interpretive Center, Route 4, Kingsport 37660), Perry Cleveland, David Coat, Charlotte Finucane, Dick Finucane, Tom Finucane, Tom Gannaway, Ed Gift, Hayden Hannabass, Jeff Lappin, Betsy Oglesby, John Peirce, John Peirce, Jr., Eugene Scott, Ann Switzer.

ELIZABETHTON—14 Dec.; 06:30 to 17:30; clear to partly cloudy; temp. 34° to 51°; no wind; 15 observers in 7 parties; 66 party-hours (43 on foot, 23 by car); 337 party-miles (30 on foot, 307 by car).

J. C. Browning, Joy Dillenbeck, Martha Dillenbeck, Mrs. George Dove, Glen D. Eller (compiler—Route 3, Grandview Terrace, Elizabethton 37643), Harry Farthing, Sally Goodin, Lee R. Herndon, Richard Lewis, John Martin, Jake Slonaker, Alan Smith, Maxie and Tommy Swindell, Gary O. Wallace.

BRISTOL—28 Dec.; temp. 41° to 54°; rainy to partly cloudy; 13 observers in 5 parties and 1 feeder observer.

F. Rockwell Bingham (compiler—216 Melody Lane, Bristol 37620).

ROAN MOUNTAIN—24 Dec.; 07:00 to 16:00; cloudy, fog; temp. 41° to 57°; wind SSW, 5-35 mph; snow, trace to 8 inches; 7 observers in 3 parties; 20 party-hours (12 on foot, 8 by car); 78 party-miles (16 on foot, 62 by car).

Glen D. Eller (compiler—Route 3, Grandview Terrace, Elizabethton 37643), John W. Gray, Bob Herndon, Lee R. Herndon, Alan Smith, Maxie and Tommy Swindell. Sharp-shinned Hawk (1), Cooper's Hawk (1), Hairy Woodpecker (2), Downy Woodpecker (9), Eastern Phoebe (1), Blue Jay (6), Common Raven (5), Common Crow (25), Carolina Chickadee (29), Tufted Titmouse (15), White-breasted Nuthatch (10), Red-breasted Nuthatch (46), Carolina Wren (8), Robin (7), Eastern Bluebird (2), Golden-crowned Kinglet (4), Ruby-crowned Kinglet (1), House Sparrow (12), Cardinal (5), Evening Grosbeak (91), Purple Finch (3), Pine Siskin (56), American Goldfinch (27), Rufous-sided Towhee (1), Dark-eyed Junco (71), Field Sparrow (16), White-throated Sparrow (6), Song Sparrow (18). Total 28 species.

BIRDS OF THE NASHVILLE AREA

Third Edition, 1975

Compiled originally by Henry E. Palmer

Now available to TOS Members at $1.50 plus postage (16¢), to non-members at $2.00. Write Miss Pat Stallings, Box 1301, Nashville, Tennessee 37202.

A NEW SPECIES FOR TENNESSEE

YELLOW-HEADED BLACKBIRD IN MEMPHIS—A male Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) appeared at a feeder in eastern Memphis on 10 March 1975, remaining thru 3 May 1975. Mrs. Alice Sims (at 3572 Northwood Dr.) advised member Genevieve Geren of the bird on 30 March and the latter, on seeing the bird, at once notified other members. Identification was further verified the next morning by Lula and Ben Coffey, Helen and Henry Dinkelspiel. Thru the kindness of Mrs. Sims, many members from Memphis and points East, were free to observe the bird at any time. She reported that it arrived early and remained late, each day, indicating that it roosted at no great distance. It was last seen, all day, 3 May. A watch was kept for it, 4 and 5 May and later. Apparently, this is the first corroborated report of this species for Tennessee.

Ben B. Coffey, Jr., 672 N. Belvedere, Memphis 38107.

* * * * * * * *

BOOK REVIEW

BEHAVIOR AS AN ECOLOGICAL FACTOR. Edited by David E. Davis. Dowden, Hutchinson & Ross, Inc., Stroudsburg, Pa., 1974. 390 pp. $24.00.—This book is part of the Benchmark Books Publishing Program. It consists of a collection of 27 papers which have significantly influenced the direction of the study of animal behavior as it relates to the environment. The papers in the book consist of both classic and recent papers representing the important developments within the field of animal behavior as an ecological factor. Through the arrangement of the papers the development of this subject is traced from the time of narrow focus on the organism to the point where the whole population's behavior is treated as a unit with other ecological factors. Although other organisms are considered, the emphasis is on birds.

The papers have been arranged in five sections: Behavioral Adjustments to Habitat, Reproductive Behavior, Social Behavior, Behavior of Populations, and Applied Behavior. The readings show that behavior as an ecological factor is very complex. This book will be a valuable addition to the library of people working in such fields as animal behavior, biology, ecology, ornithology, and wildlife management.

Gary O. Wallace

ROUND TABLE NOTES

APPARENT DOUBLE NESTING OF THE AMERICAN KESTREL—In the 27 May, 1973 issue of the Chattanooga News-Free Press, a picture and story featured the fledging of three American Kestrels (*Falco sparverius*) from a hole between the 8th and 9th floor in the all glass and concrete Blue Cross-Blue Shield Building, downtown Chattanooga. These birds had drifted to the street below and were picked up by passersby. In the wild the young hawks, upon fledging are capable of flying to a nearby perch. In this situation there were no perches nearby, only heavy automotive traffic and numerous pedestrians.

This was the first positive evidence of the American Kestrel nesting in the Chattanooga area other than a female specimen taken on Lookout Mountain 31 March, 1882. This bird had one egg ready to be laid (Wetmore, Alexander, 1939. *Notes on the Birds of Tennessee.* Proceedings of the United States National Museum (Washington) Vol. 86, No. 3050:183.)

A great deal of time and effort has been spent in verifying the nesting of this species in the Chattanooga area and all of it appears to be negative with only an occasional bird being found in the nesting season.

On 3 August a telephone call was received that there were three more young a few days old (eyes not yet open), in the same nest hole. The birds were allowed to fledge.

Although the adults were not color marked, this appears to be very strong circumstantional evidence of a double nesting of a pair of American Kestrels. A possible stimulus for the above described behavior could be the sudden loss of the young when they fledged. It is a well known fact that when a nest is destroyed or otherwise disrupted early in the reproductive cycle, the pair will attempt to renest. Perhaps this is what happened with these birds, but at a much later period in their cycle.

Oliver Irwin (*The Migrant,* Vol. 30:39) reported a similar experience with a pair in a dead tree at Memphis.

KENNETH AND LILLIAN H. DUBKE, Route 1, Box 134-D, Ooltewah 37363.

PIPING PLOVER SEEN IN COCKE COUNTY—While searching for shorebirds and herons at the confluence of the French Broad and Nolichucky Rivers, Cocke County, on 1 September 1974 one Piping Plover (*Charadius melodus*) was found at 16:00 EDT by Tony Koella. The bird was feeding among 6 Semipalmated Plovers (*Charadius semipalatus*) and several sandpipers which aided identification because of the comparative overall whiteness of the bird. The bird was in summer plumage with the single chest bar and the single black mark on the forehead to the eye. The bill was light colored with a black tip and the legs were light colored which marks would distinguish the bird from a Snowy Plover (*Charadius alexandrinus*) which is a strictly local breeding bird on the Gulf of Mexico Coast. The whiteness in the back and the distinctively different facial features between the Piping and Semipalmated Plover were quite evident.

I observed the bird first through 10 x 15 binoculars and then followed up by observing the bird through a Bausch and Lomb 30 X scope. I observed the bird about 150 feet away in excellent lighting as I was west of the bird facing east with the sun behind me. The weather was in the 70's and clear skies.

At the confluence of the two rivers, I also observed besides the plovers, 4 Solitary Sandpipers (*Tringa solitaria*), 3 Lesser Yellowlegs (*Tringa flavipes*), 5 Short-billed Dowitchers (*Limnodromus griseus*), 1 White-rumped Sandpiper (*Calidris fusciollis*), 10 Least Sandpipers (*Calidris minutilla*), 90 Semipalmated Sandpipers (*Calidris pusillus*), and 4 Pectoral Sandpipers (*Calidris melanotos*). After leaving the confluence of the French Broad and Nolichucky, I went approximately 2 miles on down the river to Douglas Lake where I spotted another Piping Plover also in summer plumage but by himself except for some Killdeers (*Charadrius vociferus*). It physically could be only one bird as it would have had time to fly the two miles down stream, but I would think that it would have stayed with the group described above instead of striking out on its own. Also on Douglas Lake, there were 28 Black Terns (*Chlidonias niger*).

The observer has had previous experience with all of the above mentioned plovers as well as the Wilson's Plover (*Charadrius wilsonia*) on the gulf and Atlantic Coasts.

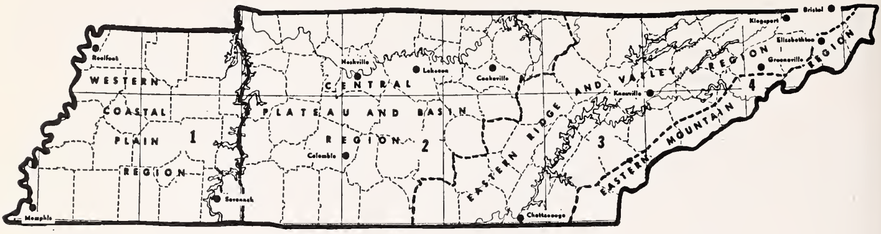
There have been at least 12 previous records of the Piping Plover in Tennessee. The first record was sighted by Ben B. Coffey, Jr. on 5 May 1935 South of Memphis (*The Migrant,* 1935, 6:35). The next record did not occur until the 1950's during which decade there were 3 or 4 sightings in the state. There were none during the 1960's but there have been 9 sightings (including mine) during the 1970's. Mike Bierley of Nashville was kind enough to search back issues of *The Migrant* to get a count of sightings for which I am most grateful.

TONY KOELLA, Department of Conservation, 2611 West End Avenue, Nashville 37203.

Daniel R. Jacobson, Box 6, Wildwood, GA 30757, has replaced Charles P. Nicholson as the regional compiler of the season report for the Eastern Ridge and Valley Region. He will begin with the Spring Migration Season Report (16 Mar - 15 May), which will appear in the Sept., 1975 issue of *The Migrant.* Support Daniel by reporting your records to him. Our thanks to Chuck for his work with the T.O.S. He will be attending the University of Maine.

THE SEASON

FRED J. ALSOP, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
Columbia
2
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

FALL MIGRATION: 1 AUGUST - 31 OCTOBER

Shorebirds perhaps are the most outstanding feature of this fall migration report. They are not only indicated in good numbers in the regions across the state but several species which have been of uncommon occurrence in Tennessee are being reported with greater regularity, possibly reflecting a more active watch in shorebird habitat at the proper seasons by the State's birders than an increased presence of the species. Ruddy Turnstones are again reported from the Western Coastal Plain where an American Avocet was also found. Sanderlings were observed in the Western Coastal Plain and in the Eastern Ridge and Valley Regions. Wilson's Phalaropes and Baird's Sandpipers were seen in both the Central Plateau and Basin and the Eastern Ridge and Valley Regions, and a flock of 30 Willets was only one of five reports of this species from the latter region.

Other water associated birds were some of the more noteworthy species reported this Fall. A Louisiana Heron was found in the Western Coastal Plain. A Brant was observed by many birders in late October at Hiwassee Island, and a White Ibis and a Snowy Egret were also reported from the Eastern Ridge and Valley.

Raptorial species were represented by many observations including those of a Golden Eagle and a Peregrine Falcon in the Eastern Ridge and Valley, and a Rough-legged Hawk and a Merlin (Pigeon Hawk) in the Central Plateau and Basin Regions. Several Yellow-bellied Flycatchers were reported and some were banded in the Central Plateau and Basin. In the Eastern Mountain Region a very late Black-billed Cuckoo was observed in early November (three days after this reporting period ended).

These are but a few of the many observations reported this Fall Migration season. The Regional Compilers continue to request your observations, especially from those birders in the Eastern Mountain Region and the Western Coastal Plain Region. Send us your records so we may have the fullest picture possible of the seasonal status of the birds of Tennessee.

WESTERN COASTAL PLAIN REGION—*Heron-Tern: LOUISIANA HERON:* 27 Aug. (1) DRU (JL). Black-crowned Night Heron: 5 Sept. (5) DRU (JL), 7 Sept. (4) DRU (MCTOS). Turkey Vulture: 3 Oct. (15) M

(BM). Sora: 5 Sept. (1) DRU (JL). *RUDDY TURNSTONE:* 3 Aug. (1) Island 13, Lake Co. (MLB, GJ). Common Snipe: 19 Oct. (1) HWR (JL). Upland Sandpiper: 7 Sept. (1) DRU (JL). Short-billed Dowitcher: 4 Aug. (1) Island 13, Lake Co. (MLB, GJ). Sanderling: 3 Aug. - 4 Aug. (3) Island 13, Lake Co. (MLB, GJ). *AMERICAN AVOCET:* 14 Sept. (2) Medal of Honor Lake, South of Memphis within Shelby Co. Third record for Shelby Co. (NS, MD, ER, BG, TW, MW). Forester's Tern: 3 Aug. (1) Lake Co. (MLB, GJ). Black Tern: 3 Aug. and 27 Aug. (1-3) DRU (JL).

Cuckoo-Sparrow: Yellow-billed Cuckoo: 18 Oct. (1) M (TC). Common Nighthawk: 12 Oct. (8-10) M (ANS, HHD, MD), 16 Oct. (50) Olive Branch, MS, Approx. 5 miles south of M (BS). Red-bellied Woodpecker: 12 Oct. (1 imm.) M (MD). Yellow-bellied Sapsucker: 29 Sept. (1) M (TC). Olive-sided Flycatcher: 13 Sept. (1) HWR (JL). White-breasted Nuthatch: 31 Oct. (2) T. O. Fuller (BM). Red-breasted Nuthatch: 31 Oct. (4) T. O. Fuller (BM). Brown Creeper: 4 Oct. (1) M (HD, MW). Winter Wren: 14 Oct. (1) M (HD). Golden-crowned Kinglet: 8 Oct. (1) M (TC). Solitary Vireo: 26 Oct. (1) M (HD). Yellow-rumped (Myrtle) Warbler: 2 Oct. (1) M (TC). Black-throated Green Warbler: 26 Oct. (1) M (TC). Blackburnian Warbler: 25 Oct. (1) M (TC). Ovenbird: 14 Oct. (1) M (HD, TC). Orchard Oriole: 26 Sept. (1) M (TC). Scarlet Tanager: 12 Oct. (1) M (TC). Summer Tanager: 19 Oct. (1) M (HD), 22 Oct. (1) M (TC) 31 Oct. (2) T. O. Fuller (BM). Rose-breasted Grosbeak: 16 Oct. (1) M (TC). Dark-eyed Junco: 19 Oct. (2) HWR (MCTOS). Swamp Sparrow: 19 Oct. (1) HWR (JL). Song Sparrow: 19 Oct. (1) HWR (JL).

Locations: DRU—Duck River Refuge, Tennessee National Wildlife Refuge, Hutsburg, TN. M—Memphis. HWR—Hatchie Wildlife Refuge. T. O. Fuller—T. O. Fuller State Park, Southeast Shelby Co.

Observers: MCTOS—Memphis Chapter, TOS. JL—Jerald Ledbetter. MLB—Mike L. Bierly. GJ—Greg Jackson. ANS—Arlo and Noreen Smith, NS—Noreen Smith. HHD—Henry and Helen Dinkelspiel, HD—Helen Dinkelspiel. MD—Mary Davant. ER—Ernie Restivo. BG—Billy Grimm. TW—Ted Wilson. MW—Martha Waldron. TC—Tiny Carpenter. BM—Bob McGowan. BS—Bill Sparenberger.

Martha Waldron, 1626 Yorkshire Drive, Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Loon-Rail:* Common Loon: 2 Sept. (1, early) PPL (MLM). Horned Grebe: 20 Oct. (3) OHL (BF, SF). *DOUBLE-CRESTED CORMORANT:* 6 Oct. (2) GSP (DC, PC); 6 Oct. (1) OHL (BF, SF). Great Blue Heron: 29 Oct. (19) GSP (DC, PC). Little Blue Heron: 10 and 11 Aug. (4, imm.) G (DC, PC). Great Egret: 29 Sept. (1) GSP (MPS); 1 Oct. (20) PPL (Anne and Bob Hettish). American Bittern: 29 Sept. (1) BV (MLB). Snow Goose: 8 Oct. (2) OHL (Wick Comer). Black Duck: 1 Sept. (1, early) GSP (DC, PC). Green-winged Teal: 22 Sept. (1) BV (MLB). Redhead: 23 Oct. (3) RL (MLB). Ruddy Duck: 21 Oct. (1) RL (MLB). Common Merganser: 26 Oct. (8) OHL (BF, SF). Red-breasted Merganser: 29 Sept. (1, early) PPL (BF, SF). Sharp-shinned Hawk: 28 Sept. (2) OHL (MPS); 29 Sept. (2) BV (MLB); 9 Oct. (1) G

(DC, PC). Cooper's Hawk: 28 Sept. (1) F (JOE); 6 Oct. (1) GSP (DC, PC). Broad-winged Hawk: 28 and 29 Sept. (70, Nash. fall count). *ROUGH-LEGGED HAWK:* 13 Oct. (1) BS (KAG, Mel Garland). Osprey: 1 Sept.-13 Oct. (at least 7 sightings of single birds, NA). *MERLIN:* 28 Aug. (1) N (HR). Virginia Rail: 17 Sept. (1, casualty, WSM Tower) (KAG); 19 and 20 Sept. (1) FP (MDW). Sora: 5 Aug. (1) BV (MLB); 14 and 22 Sept. (1, casualty, WNGE Tower) (MLB).

Killdeer-Nuthatch: Killdeer: 27 Oct. (118) GSP (PC). *UPLAND SANDPIPER:* 31 Aug. (1, last) Nash. Metro Airport (MLB). Solitary Sandpiper: 16 Oct. (3) LHL (LC). Greater Yellowlegs: 16 Oct. (3) LHL (LC); 25 Oct. - 27 Oct. (1) GSP (PC). *BAIRD'S SANDPIPER:* 19 Sept. (1) GSP (PC). Dunlin: 29 Oct. (4) and 30 Oct. (8) GSP (DC, PC). Dowitcher (sp?): 21 Aug. (1) BV (Tony Koella). Stilt Sandpiper: 22 Sept. - 29 Sept. (1) BV (MLB). Sanderling: 18 and 19 Sept. (1) GSP (PC): 23 Sept. - 30 Sept. (up to 4) OHL (BF, SF). *WILSON'S PHALAROPE:* 10 Aug. (1) G (DC, PC). Bonaparte's Gull: 26 Oct. (2) OHL (BF, SF). Forster's Tern: 21 Sept. (2) OHL (BF, SF); 21 Sept. (1) GSP (PC). Caspian Tern: 14 Sept. (7) PPL (MLB, MPS); 14 Sept. (2) OHL (BF, SF). Black Tern: 1 Sept. (100) OHL (MLM). Yellow-billed Cuckoo: 20 Oct. (2 fresh road-kills, 1 Lawrence Co. and 1 Wilson Co.) (MDW). Black-billed Cuckoo: 6 Aug. (1) N (HR); 6 Oct. (1) G (PC); 10 Oct. (1) LC (LC). Common Nighthawk: 31 Aug. (231) N (JR). Eastern Kingbird: 13 Oct. (1, late) LC (LC). *YELLOW-BELLIED FLYCATCHER:* 7 and 15 Sept. (1) BS (KAG). 7 and 28 Sept. (1, banded) 2JS (HR, JR). Traill's Flycatcher (sp?): 25 Aug. (1, banded) and 14 Sept. (4, banded) 2JS (HR, JR). Least Flycatcher: 14 Sept. (3, banded) and 28 Sept. (2, banded) 2JS (HR, JR). Horned Lark: 14 Sept. (60) FP (MDW). Red-breasted Nuthatch: 1 Oct. (1) LC (Helen Clayton).

Wrens-Sparrows: House Wren: 20 Sept. (1) FP (MDW). Bewick's Wren: 24 Aug. (1 banded, repeated 5 Oct.) 2JS (HR, JR). Long-billed Marsh Wren: 28 and 29 Sept. (1 each day, fall count, NTOS). Short-billed Marsh Wren: 28 Sept. (2) and 29 Sept. (1), fall count (NTOS). Gray-cheeked Thrush: 19 Oct. (1, banded, late) 2JS (HR, JR). Veery: 14 Sept. (1) Ashland City Marsh (JH, RM); 16 Sept. (1) RL (MLB, MDW). Ruby-crowned Kinglet: 9 Sept. (1, early) NA (MLM); 26 Sept. - 8 Nov. (75, banded) N (KAG). Water Pipit: 10 Oct. (10) OHL Laurence Trabue; 30 Oct. (3) GSP (DC, PC). Yellow-throated Vireo: 26 Oct. (1, late) NA (BF, SF). *PHILADELPHIA VIREO:* 12 Sept. (1, early) FP (MDW). Orange-crowned Warbler: 4 Oct. (2, banded) 2JS (HR, JR). 21 Oct. (1) NA (KAG). Black-throated Blue Warbler: 29 Sept. (1) F (JOE). Blackpoll Warbler: 16 Oct. (1, casualty, WSM Tower) late (KAG). Mourning Warbler: 12 Sept. (2, banded) 2JS (HR, JR); 14 Sept. (1) G (DC); 20 Oct. (1, road-kill, dead several days) Maury Co. (MDW). Bobolink: 14 Sept. (220) Cheatham Lake (JH, RM). Grasshopper Sparrow: 23 Aug. (9) Springfield (JH). Lincoln's Sparrow: 4 Oct. (2, banded) 2JS (HR, JR).

Locations: BS—Basin Springs, BV—Buena Vista, F—Fernvale, FP—Five Points (Lawrence Co.), G—Gallatin, GSP—Gallatin Steam Plant, LC—Lawrence Co., LHL—Laurel Hill Lake, N—Nashville, NA—Nashville Area, OHL—Old Hickory Lake, PPL—Percy Priest Lake, RL—Radnor Lake, 2JS—Two Jays Sanctuary.

Observers: MLB—Mike Bierly, LC—Lloyd Clayton, DC—Dot Crawford, PC—Paul Crawford (Compiler, Nashville Area), JOE—John Ellis, BF—Bill Fintel, SF—Sally Fintel, KAG—Katherine Goodpasture, JH—James Holt, MLM—Margaret Mann, RM—Rocky Milburn, HR—Heather Riggins, JR—John Riggins, MPS—Pat Stallings, NTOS—Nash. T.O.S. Chapter, MDW—Morris Williams.

Morris D. Williams, Five Points 38457.

EASTERN RIDGE AND VALLEY REGION—The weather for the period was average, except for earlier than usual frosts in October.

The shorebird migration was very good in the Chattanooga and Upper East Tenn. areas. Several Willets were recorded; other unusual species were Stilt Sandpipers, a Baird's Sandpiper, Western Sandpipers, and a Wilson's Phalarope. Due to a lack of suitable habitat (and of observers?) there were few shorebirds reported from the Knoxville area.

One of the most unusual birds reported was a Brant, at Hiwassee Island in late October. Also reported were a White-fronted Goose and both color morphs of the Snow Goose.

A large *tower kill* occurred in Knox County on September 14. Over 1500 individuals, comprising 47 species, were gathered by Fred Alsop and Chester Massey. Included in the kill were 247 Red-eye Vireos, 1 Philadelphia Vireo, 122 Kentucky Warblers, and 115 Veeries.

The Knoxville Chapters' fall count, held on September 29, listed 116 species.

Loon-Ibis: Common Loon: first 5 Oct. (1) BL (JD, MD). Horned Grebe: 19 Oct. (7) NL (DRJ). *DOUBLE-CRESTED CORMORANT:* 26 Oct. (3) HRA (JND, LD); 29 Oct. (1) HRA (KLD). Green Heron: 15 and 24 Oct. (1) SB (KLD); 20 Oct. (1) Warrior Path State Park (DJL). Little Blue Heron: 6 Aug. (1) HRA (DRJ); 30 Aug. (1) HRA (KLD); 21 Oct. (2) HRA (KLD). Great Egret: 4-24 Aug. (2) SeV (LSF); 11-21 Sept. (1) AS (ETOS); 1-12 occasional at HRA thru 16 Oct. (KLD, DRJ). *SNOWY EGRET:* 20-31 Aug. (1) HRA (KLD, DRJ, LMJ). Black-cr. Night Heron: 11 Aug. - 4 Oct. (3-5 imm., 2 ad.) AS (ETOS); 11 Aug. (1 imm.) CC (JMC, JCH); 31 Aug. (2) SB (KLD). Yellow-cr. Night Heron: 31 Aug. (2) SB (LD); 18 Sept. (1 imm.), 5 Oct. (1 imm.) AS (MD, SG). Least Bittern: 3 Sept. (1) SB (KD). American Bittern: 3 Sept. (1) SB (KD). *WHITE IBIS:* 29 Aug. (1 imm.). AlM (MDW); 30 Aug. (1) HRA (KLD).

Goose-Hawk: Canada Goose: first 24 Sept. (18) HRA (KLD); 30 Oct. (5) AS (MD, SG). *AMERICAN BRANT:* 29 Oct. to end of period (1) HRA (KLD, et al). Snow Goose: 29 Oct. to end of period (1) HRA (KLD). Blue (morph) Goose: 30 Sept. (3) HRA (KLD); 29 Oct. (20) HRA (KLD). Pintail: first 24 Sept. (3) HRA (KLD). Green-winged Teal: 15 Sept. (2) CC (JMC, JCH). Blue-winged Teal: 31 Aug. (300) SB (KLD). Wood Duck: max 450 HRA (KLD, DRJ). Redhead: 28 Oct. (4) BWP (KLD). Lesser

Scaup: 28 Oct. (11) BWP (KLD). Black Vulture: 6 Aug. (2 young about grown banded). Grindstone Mtn. (Carl Swafford). Sharp-shinned Hawk: 29 Sept. (9) K (KTOS); 12 Oct. (3) Harriman (CPN). Cooper's Hawk: 29 Sept. (1) K (KTOS); 5 Oct. (1) Erwin (HD). *GOLDEN EAGLE:* 26 Oct. (1 ad.) HRA (JND, LD). Marsh Hawk: 29 Sept. (1) K (KTOS); 5 Oct. (1) Erwin (GE, HF). Osprey: 1 Sept. (1) CC (JMC, JCH); 15 Sept. (1) AS (GE, HF); 29 Sept. (4) K (KTOS); 5 Oct. (1) AS (MD, JD, SG). *PEREGRINE FALCON:* 21 Sept. (1) K (JMC, GE). Sparrow Hawk (American Kestrel): 29 Sept. (22—high count) K (KTOS).

Rail-Tern: King Rail: 9 Sept. (1) HRA (DRJ). Virginia Rail: 3 Sept. (1) SB (KD); 29 Sept. (1) AS (GE, LRH). Sora: 5 Oct. (1) Blountville (JD, MD); 10 Oct. (1) AM (KD). Semipalmated Plover: 24 Aug. - 21 Sept. (1) AS (ETOS); 6 Aug. (2) HRA (KLD, DRJ); 16 and 30 Aug. (1) HRA (KLD). American Golden Plover: 16 Oct. (1) SB (KD). Black-bellied Plover: 30 Aug. (2) SB (LD). Common Snipe: first 3 Sept. (1) SB (KLD); 15 Sept. (1) AS (GE). Spotted Sandpiper: 11 Aug. (1) CC (JMC, JCH, JH); 1-3 reg. thru 20 Sept. at SB (KLD); 29 Sept. (2) K (KTOS). Solitary Sandpiper: thru 20 Aug. (1-2) SB (KLD); 29 Sept. (1) K (KTOS). *WILLET:* 3 Aug. (30) SB (KLD); 3 Aug. (6) SeV (LSF); 11 Aug. (1) CC (JMC, JCH, JH); 11 Aug. (1) AS (GE, HF)—only 2nd upper E. T. record, last in 1968; 17 Aug. (1) WW (DRJ). Greater Yellowlegs: 1-3 reg. thru period, max. 16 Oct. (15) at HRA (KLD); 25 Aug. (1) CC (JMC, JCH, JH). Lesser Yellowlegs: 1-4 reg. thru 21 Oct. at HRA, SB (KLD); 25 Aug. (2) CC (JMC, JCH, JH); 24 Oct. (1) AS (DJL). Pectoral Sandpiper: reg. thru 26 Oct. at HRA, SB (KLD, DRJ) Least Sandpiper: 1-26 reg. from 3 Aug. thru period at SB and HRA (KLD, DRJ); 11 Aug. (1), 25 Aug. (2) CC (JMC, JCH, JH). Dunlin: first 30 Sept. (35) HRA (KLD); 17 Oct. (14) AS (GE, LRH). Short-billed Dowitcher: (by call note) 25-31 Aug. (1) SB (KLD); 18 Aug. (2) HRA (KLD). Stilt Sandpiper: 29 Aug. (1) HRA (KLD, DRJ); 29 Sept. (1) K (Bill Williams). Semipalmated Sandpiper: 3 Aug. (6) SB (KLD); 8 Aug. (4), 22 Aug. (5) SB (KLD); 25 Aug. (1) CC (JMC, JCH, JH); 16 Sept. (8) HRA (KLD). *BAIRD'S SANDPIPER:* 22 Sept. (1) CC (JMC, JCH, J. Nieme). Western Sandpiper: 2-3 irreg. at AS from 2 Aug. - 14 Oct. (ETOS); 22 Aug. (2) SB (LD); 30 Aug. (1) HRA (KLD). *SANDERLING:* 19 Aug. - 23 Aug. (1) AS (ETOS); 30 Aug. (2) HRA (KLD). *WILSON'S PHALAROPE:* 11 Sept. (1) SB (KLD, et al). Ring-billed Gull: first 21 Oct. (1) HRA (KLD). Bonaparte's Gull: 13 Oct. (1) BL (DJL). Forster's Tern: 8 Aug. (1) HRA (DRJ, LMJ); 28 Aug. (5), 3 Sept. (2) NL (DRJ); 29 Sept. (1) K (Jim Tanner); 3 Oct. (3), 6 Oct. (1) SB (KLD); 14 Oct. (4) HRA (KLD). Common Tern: 1 Sept. (3), 15 Sept. (2) NL (LSF); 16 Sept. (3) HRA (KLD). Least Tern: 29 Sept. (1) K (Terry McGowan). Black Tern: 1-22 reg. to 5 Sept. at HRA, SB, NL (KLD, LSF, DRJ); 3 Sept. (52) NL (DRJ).

Owl-Pipit: Barn Owl: 20 Aug. (1) AM (DRJ). Common Nighthawk: 13 Sept. (migratory flock of 125+) K (CPN); 15 Sept. (709) Da (LSF), 11 Oct. (2) K (JGH). Chimney Swift: 14 Oct. (200 Chatt. (KLD) Red-headed Woodpecker: 22 Sept. (2) CC (JMC, JCH, J. Nieme); 29 Sept. (2) K (CPN, MDW); 14 Oct. (1) K (WKJ, CPN). *Eastern Kingbird: 70-80 at* *roost,* to 2 Sept. at SB (KLD). Wood Pewee: last 20 Oct. (1) JC (SG). Tree Swallow: 25 Oct. (1) LM (GLB). Barn Swallow: last 12 Oct. (1) SB (KLD). *Blue Jay: heavy migration noted* on: 29 Sept. (*240*), 30 Sept. (*225*), 1 Oct. (*200*), 2 Oct. (6) all Missionary Ridge, Chat. (AG). Red-breasted Nuthatch: 10 Oct. (1) Collegedale (LS); 13 and 14 Oct. (1-3) Hamilton Co. Park (JND); 28 Oct. (6) BWP (KLD). Winter Wren: first 5 Oct. (1) HM (MDW). Long-billed Marsh Wren: 29 Sept. (1) K (CPN, MDW). Water Pipit: 12 Oct. (2) SB (LD, TF, DRJ); 29 Oct. (50) HRA (KLD).

Vireo-Sparrow: Solitary Vireo: 17 Oct. (1) K (JGH). *PHILADELPHIA VIREO:* 22 Sept. (1) CC (JMC, JCH); 26 Sept. - 5 Oct. (1) JC (SG); 5 Oct. (3) HM (MDW). Orange-crowned Warbler: 29 Sept. (1) K (KTOS); 2 Oct. (1) JC (MD); 5 Oct. - 28 Oct. (1-2) K (JGH). Blackpoll Warbler: 14-18 Oct. (1-2) K (JGH). Louisiana Waterthrush: 5 Oct. (1) Er (HF). Wilson's Warbler: 29 Sept. (1) K (CPN, MDW). Bobolink: 29 Sept. (29) K (KTOS); 8 Oct. (8) K (WKJ, CPN). Orchard Oriole: last 10 Sept. (3) Hixson (JND). Scarlet Tanager: last 17 Oct. (1) K (JGH). Rose-breasted Grosbeak: 27 Oct. (1) BL (MD, SG). Blue Grosbeak: 8 Oct. (3) K (CPN). Purple Finch: first 26 Oct. (4) WW (DRJ). Vesper Sparrow: 19 Oct. (4) NL (DRJ). White-crowned Sparrow: first 17 Oct. (12) AS (GE, LRH). White-throated Sparrow: 29 Sept. (1) K (KTOS). Lincoln's Sparrow: 29 Oct. (1) HRA (KLD).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BL—Boone Lake; BWP—Booker T. Washington State Park; CC—Campbell Co.; Chat—Chattanooga area; DA—Daus; Er—Erwin; HRA—Hiwassee River Area; HM—House Mtn.; K—Knoxville area; JC—Johnson City; LM—Lookout Mtn., Ga.; NL—Nickajack Lake; SB—Savannah Bay; SeV—Sequatchie Valley; WW—Wildwood, Ga.

Observers: GLB—Gary L. Bayne; JMC—James M. Campbell; JND—Jon and Nancy DeVore; JD—Joy Dillenbeck; MD—Martha Dillenbeck; HD—Helenhill Dove; KD—Ken Dubke; LD—Lil Dubke; KLD—Ken and Lil Dubke; GE—Glen Eller; ETOS—Elizabethton Chapter, TOS; HF—Harry Farthing; AG—Ann Gibson; SG—Sally Goodin; LRH—Lee R. Herndon; JGH—James G. Holt; JCH—J. C. Howell; JH—J. Hubbard; DRJ—Daniel R. Jacobson; LMJ—Lemuel M. Jacobson; WKJ—Wesley K. James; KTOS—Knoxville Chapter, TOS; DJL—Dick and Joyce Lura; CPN—Charles P. Nicholson; LSF—Lee Shafer family; MDW—Morris D. Williams.

C. P. Nicholson, 6806 Haverhill Drive, Knoxville 37919.

EASTERN MOUNTAIN REGION—The overall weather for the period could best be described as mild and dry. August and September were near normal in all aspects. October was the driest on record since 1968 with only 2.6 inches of rainfall recorded. We had two very early "killing" frosts on 2 and 3 Oct. These frosts were almost two weeks earlier than usual. Several late stragglers were reported and most of the waterfowl were a few days early, due mostly to the earlier than last year's colder weather here and to the north of us.

Loon-Hawk: Common Loon: 27 Oct. (2) WatL (GE); Green Heron: last seen 5 Oct. (1) RC (LRH); Yellow-crowned Night Heron: 16 and 24 Aug.

(1) WatR (GE, MD); Black Duck: 19 Oct. (8) WibL (GE) first return; Green-winged Teal: 6 Oct. (4) WibL (HF) and 19 thru 27 Oct. (1-2) WibL (GW); Blue-winged Teal: 10 Sept. (3) WatR (LRH) first return; American Wigeon: 19 Oct. (2) WibL (GE) first return; Ring-necked Duck: 5 Oct. (5) WatL (GW, DJL) first return; Bufflehead: 20 Oct. (1) WibL (GW) first return; Black Vulture: 22 Sept. (2) HM (GE, FWB); Cooper's Hawk: 15 Sept. (2) IMG (SG); 22 Sept. (1) HM (GE, FWB); 6 Oct. (5) RM (TMS); Broad-winged Hawk: 18 Sept. (500) and 22 Sept. (600) HM (FWB, GE); Marsh Hawk: 5 Oct. (1) RC (Lois Herndon).

Snipe-Swallow: Common Snipe: 11 Oct. (1) WatR (GE) first return; Least Sandpiper: 7 Sept. (2) RC (GW, GE); Semipalmated Sandpiper: 7 Sept. (4) RC (GW, GE); Ring-billed Gull: 28 Sept. (1) WatL (GW) first return; Forester's Tern: 13 Sept. (1) RC (LRH) and 29 Sept. (1) WatL (GW); *BLACK-BILLED CUCKOO:* 3 Nov. (1) very late IMG (SG); Great Horned Owl: 26 Aug. (1) HM (FWB) and 12 Oct. (1) HC (TMS); Barred Owl: 22 Sept. (1) HM (FWB) and 5 Oct. (2) HM (GW); Common Nighthawk: 6 Oct. (2) Eliz. (HF) last seen; Chimney Swift: 10 Oct. (3) Eliz. (GE) last seen; Tree Swallow: 22 Sept. (2) HM (GE, FWB); Bank Swallow: 3 Aug. (3) WatR (GW); Cliff Swallow: 15 Aug. (75-100) SV (LRH, GE).

Nuthatch-Sparrow: Red-breasted Nuthatch: all thru period (15-25) very plentiful on RM (FWB); Brown Creeper: 5 Oct. (1) RC (LRH) and 20 Oct. (2) HC (TMS); Long-billed Marsh Wren: 7 Oct. (1 banded) Eliz. (LRH); Water Pipit: 5 Oct. (1) RM (FWB); Solitary Vireo: 21 Oct. (1) RM (FWB) last seen; Swainson's Warbler: 25 Aug. (1) HM (SG); Orange-crowned Warbler: 18 Sept. (1) HC (TMS); Purple Finch: 5 Oct. (3) RC (LRH) first return; Savannah Sparrow: 19 Sept. (12) SV (GW); Grasshopper Sparrow: 5 Oct. (1) late SV (GW, DJL); White-crowned Sparrow: 9 Oct. (2) Eliz. (LRH); White-throated Sparrow: 5 Oct. (2) SV (GW) first return; Lincoln's Sparrow: 5 Oct. (7) WatL (LRH).

Locations: Eliz.—Elizabethton area, HC—Heaton Creek (RM), HM—Holston Mountain, IMG—Iron Mountain Gap near Erwin, RC—Roans Creek, RM—Roan Mountain, SV—Siam Valley near Eliz., WatL—Watauga Lake; WatR—Watauga River, WibL—Wilbur Lake.

Observers: FWB—Fred Behrend; MD—Martha Dillenbeck; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee Herndon; DJL—Dick and Joyce Lura; TMS—Tommy and Maxie Swindell and GW—Gary Wallace.

Glen D. Eller, Rt. #3, Grandview Terrace, Elizabethton 37643.

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Birds.

THE MIGRANT

A QUARTERLY JOURNAL DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

SMITHSONIAN
OCT 8 1975
LIBRARIES

JUNE, 1975
VOL. 46, NO. 2

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY
FIRST PUBLISHED, JUNE 1930

PUBLISHED BY
THE TENNESSEE ORNITHOLOGICAL SOCIETY
Founded at Nashville, Tenn., 7 October 1915
A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 46 JUNE, 1975 NO. 2

MIDDLE TENNESSEE ORNITHOLOGICAL RECORDS OF THE LATE H. O. TODD, JR.

JON E. DEVORE

This paper represents a summary of the ornithological data recorded over a period of almost forty years by the late Henry Oliver (Hot) Todd, Jr. in Rutherford and several of the other counties which form a portion of the south-central region of Tennessee. The data, the bulk of which is either egg or young dates, also includes some rather interesting sight and collection records. It is hoped that in presenting this information, it will not only add significantly to our knowledge of the birds of this region, but will also serve as a stimulus for another to carry on where "Hots" work must now stop.

As far as the actual mechanics of the paper is concerned, for those species which have less than ten eggs and/or young dates, the records are listed in entirety. For species with eleven or more egg and/or young dates, an Earliest Date, Median Date and Latest Date are shown, along with Clutch and/or Brood Sizes. Regarding the Median Date, in those cases where an even number of recorded dates would have necessitatd using a mid-point between the middlemost dates, both middle dates are used as Median Dates.

The following symbols are used in the paper: e = eggs; y = young; county designations (each followed by the total number of records from that county): Bd.Co. Bedford County (3), Ca.Co. Cannon County (11), Co.Co. Coffee County (1), Fr.Co. Franklin County (13), Gr.Co. Grundy County (3), Li.Co. Lincoln County (22), Ma.Co. Maury County (30), R.Co. Rutherford County (2514), Wa.Co. Warren County (7), Wi.Co. Wilson County (1).

PIED-BILLED GREBE—Egg Dates: One record. 5-1-38 (an unknown number of eggs) found broken in the nest, R.Co.

GREEN HERON—Egg Dates: Eleven records, eight R.Co., three Fr.Co. Earliest Date: 4-17-38 (1e) Fr.Co., 4-17-38 (4e) Fr.Co., 4-17-38 (5e) Fr.Co.; Median Dates: 5-2-36 (4e) R.Co., 5-2-36 (5e) R.Co., 5-2-36 (5e) R.Co. and 5-16-37 (3e) R.Co, 5-16-37 (4e) R.Co.; Latest Date: 6-26-38 (4e) R.Co.; Clutch Sizes: one set with 1e, one set with 3e, six sets with 4e, three sets with 5e.

Young: Five records. 5-10-59 (4y) R.Co.; 5-16-37 (5y) Fr.Co.; 5-16-37 (5y) Fr.Co.; 5-16-37 (5y) Fr.Co.; 5-28-37 (4y) R.Co.

H. O. Todd, Jr. at Goose Pond, Grundy County, Tennessee, May 1, 1938.

LEAST BITTERN—Egg Dates: Five records. 6-26-38 (4e) Ma.Co.; 7-4-37 (1e) Ma.Co.; 7-4-37 (1e) Ma.Co.; 7-4-37 (5e) Ma.Co.; 7-4-37 (5e) Ma.Co.

Young: One record. 7-4-37 (1y) Ma.Co.

BLUE-WINGED TEAL—Young: Three records. 5-1-38 (10y) Gr.Co.; 5-1-38 (7y) Gr.Co.; 6-22-37 (10y) R.Co.

HOODED MERGANSER—Observations: 9-5-36 (1 female) shot R.Co.

TURKEY VULTURE—Egg Dates: Eleven records, all R.Co. Earliest Date 4-12-59 (2e) R.Co.; Median Date: 5-1-38 (2e) R.Co.; Latest Date: 5-11-38 (2e) R.Co; Clutch Sizes: one set with 1e, ten sets with 2e.

Young: Five records. 7-19-38 (2y) R.Co.; 7-23-39 (2y) R.Co.; 7-23-39 (2y) R.Co.; 7-28-40 (2y) R-Co.; 7-30-39 (1y) R.Co.

Observations: 7-7-38 (1 solid white bird) seen flying near the outskirts of Murfreesboro, R.Co.

BLACK VULTURE—Egg Dates: Three hundred sixty records, all R.Co. Earliest Date: 2-19-39 (2e) R.Co.; Median Date: 4-5-39 (2e) R.Co., 4-5-42 (2e) R.Co., 4-5-42 (2e) R.Co., 4-5-42 (2e) R.Co., 4-5-42 (2e) R.Co., 4-5-70 (2e) R.Co., 4-5-70 (2e) R.Co.; Latest Date: 7-17-38 (2e) R.Co.; Clutch Sizes: thirty-five sets with 1e, three hundred twenty-five sets with 2e.

Young: Sixty-one records, all R.Co. Earliest Date: 4-2-72 (2y) R.Co.; Median Dates: 7-2-39 (2y) R.Co., 7-2-50 (2y) R.Co. and 7-3-38 (1y) R.Co., 7-3-38 (2y) R.Co., 7-3-38 (2y) R.Co.; Latest Date: 8-16-39 (2y) R.Co.; Brood Sizes: seventeen with 1y, forty-four with 2y.

COOPERS HAWK—Egg Dates: Twenty-nine records, all R.Co. Earliest Date: 5-4-38 (1e) R.Co.; Median Date: 4-30-35 (3e) R.Co.; Latest Date: 6-11-38 (1e) R.Co.; Clutch Sizes: three sets with 1e, four sets with 2e, nine sets with 3e, ten sets with 4e, three sets with 5e.

Young: Three records. 6-11-38 (3y) R.Co.; 7-10-35 (4y) R.Co.; 7-11-37 (4y) R.Co.

RED-TAILED HAWK—Probable Nestings: Two records. Late February thru March, 1973 (adult) setting on large nest, approximately three feet in diameter at top, three feet in depth, located approximately seventy to seventy-five feet from ground in crotch of a Shagbark Hickory tree, R.Co.; mid-March, 1973 (two adult birds) seen around what appeared to be a completed nest, R.Co.

BROAD-WINGED HAWK—Egg Dates: Two records. 4-18-38 (4e) R.Co.; 4-22-38 (2e) R.Co.

GOLDEN EAGLE—Observations: 8-21-70 (1) seen flying S over Todd farm, R.Co.; 8-23-70 (1) seen flying NW over Todd farm, R.Co.; 8-30-70 (1) seen flying with (2) Broad-winged Hawks and (1) Turkey Vulture over Todd farm, R.Co.; 10-2-69 (3) seen flying over Todd farm, R.Co.; 10-12-68 (1) seen flying over Todd farm, R.Co.; 11-3-69 (1) seen flying over Hwy. 96 at Murfreesboro city limits, R.Co.; 11-26-49 (1) shot at Bell Buckle, Bd.Co.; 12-6-65 (1) caught in a trap at Bradyville, Ca.Co.; 12-16-62 (1) shot at Bell Buckle, Bd.Co.; 1-?-49 (1) shot at Bradyville, Ca.Co.; 1-2-71 (1) seen flying near Bradyville, Ca.Co.; 1-6-71 (1) seen flying over Clark Blvd., Murfreesboro, R.Co.; 1-16-50 (1) caught in a trap at Bradyville, Ca.Co.; 2-12-64 (1) seen flying near Halls Hill, R.Co.; 2-18-45 (1) seen flying twelve miles S of Murfreesboro, R.Co.; 2-24-45 (1 female) caught in a trap fourteen miles S of Murfreesboro, R.Co., this was a very gentle bird in captivity; 3-5-72 (1) seen flying near the Shelbyville Rd., R.Co.; 3-16-54 (1) shot at Bell Buckle, Bd.Co; 3-18-55 (1) caught at Auburntown, Ca.Co.; 3-19-72 (1) seen flying over Todd farm, R.Co.; 3-21-54 (1) seen flying over a vulture roost, R.Co.; 3-30-58 (1) seen flying, R.Co.; 4-23-62 (1) seen flying near Christiana, R.Co.; 4-23-70 (2) seen flying over Todd frm, R.Co.; 4-29-71 (1) seen flying very low over Todd farm, R.Co.

BALD EAGLE—Observations: 7-5-50 (1 immature) seen flying over the Woodbury Rd., Murfreesboro, R.Co.; 8-16-69 (1) seen flying over Todd farm, R.Co.

OSPREY—Observations: 8-27-69 (2) seen flying very high going N over Todd farm, R.Co.

MERLIN—Observations: 9-18-38 (1 female) shot in a yard in Murfreesboro, R.Co.

AMERICAN KESTREL—Egg Dates: Five records. 3-25-56 (4e) R.Co.; 4-9-61 (5e) R.Co.; 4-28-62 (5e) R.Co.; 5-13-70 (5e) R.Co.; 5-17-64 (4e) R.Co.

Young: Four records. 5-5-63 (4y) R.Co., 5-17-71 (5y) R.Co., 5-28-38 (4y) R.Co., 6-7-70 (4y) R.Co.

BOBWHITE—Egg Dates: Nine records. 5-3-38 (1e) R.Co.; 5-17-72 (15e) R.Co.; 5-22-37 (1e) R.Co.; 6-3-36 (14e) R.Co.; 6-8-36 (11e) R.Co.; 6-24-36 (15e) R.Co.; 6-24-37 (15e) R.Co.; 7-20-52 (2e) R.Co.; 8-26-70 (13e) R.Co.

Young: Three records. 6-20-70 (15y) R.Co.; 6-22-38 (15y) R.Co.; 10-24-65 (12y) R.Co.

SANDHILL CRANE—Observations: 11-6-68 (3) seen flying and heard calling going NE over Todd farm, R.Co.

KING RAIL—Egg Dates: One record. 5-1-38 (9e) R.Co.

KILLDEER—Egg Dates: One hundred eighty-nine records, one hundred eighty-eight R.Co., one Wi.Co. Earliest Date: 2-26-56 (5e) (R.Co.; Median Date: 4-16-37 (4e) R.Co.; Latest Date: 7-7-37 (4e) R.Co.; Clutch Sizes: thirteen sets with 1e, fifteen sets with 2e, twenty-four sets with 3e, one hundred thirty-six sets with 4e, one set with 5e.

Young: Twelve records, all R.Co. Earliest Date: 3-27-49 (4y) R.Co.; Median Dates: 5-6-37 (4y) R.Co. and 5-8-37 (4y) RCo.; Latest Date: 6-30-38 (1y) R.Co.; Brood Sizes: one with 1y, three with 2y, two with 3y, six with 4y.

BLACK-BELLIED PLOVER—Observations: 5-22-49 (6) seen feeding at a stock pond, R.Co.

AMERICAN WOODCOCK—Egg Dates: Two records. 3-22-61 (4e) Co.Co.; 3-31-38 (4e) R.Co.

UPLAND SANDPIPER—Observations: 5-18-60 (unknown number) heard flying over Todd farm, R.Co.; 7-20-47 (1) seen at college airport, R.Co.; 8-12-37 (14) R.Co.; 8-13-37 (5) R.Co.; 8-17-37 (3) R.Co.; 8-18-37 (2 and 7 at separate locations), R.Co.; 9-4-37 (3) R.Co.; 9-8-65 (1) R.Co.

LEAST SANDPIPER—Observations: 7-25-68 (1) seen at a pond on the Todd farm, R.Co.

BLACK TERN—Observations: 8-1-38 (1) shot R.Co.

MOURNING DOVE—Egg Dates: Fifty-nine records, all R.Co. Earliest Date: 3-25-59 (2e) R.Co.; Median Dates: 5-11-38 (2e) R.Co., 5-11-58 (2e) R.Co., 5-11-58 (2e) R.Co., 5-11-59 (2e) R.Co. and 5-12-37 (2e) R.Co.; Latest Date: 7-13-68 (2e) R.Co.; Clutch Sizes: two sets with 1e, fifty-seven sets with 2e.

Young: Nine records. 4-8-37 (2y) R.Co.; 4-20-38 (2y) R.Co.; 4-24-72 (2y) R.Co.; 4-24-72 (2y) R.Co.; 4-27-52 (2y) R.Co.; 8-21-38 (2y) R.Co.; 9-1-58 (1y) R.Co.; 9-4-72 (2y) R.Co.; 9-23-59 (2y) R.Co.

YELLOW-BILLED CUCKOO—Egg Dates: Four records. 6-4-37 (2e) R.Co.; 6-12-49 (1e) R.Co.; 6-28-37 (3e) R.Co.; 7-24-60 (2e) R.Co.

Young: Two records. 6-16-37 (1y1e) R.Co.; 6-17-38 (1y) R.Co.

BARN OWL—Egg Dates: One record. 6-15-64 (3e) R.Co.

Young: Two records. 6-29-38 (3y) R.Co.; 9-11-47 (2y) R.Co.

SCREECH OWL—Egg Dates: Twenty-two records, all R.Co. Earliest Date: 3-11-56 (2e) R.Co.; Median Date: 4-2-39 (3e) R.Co., 4-2-39 (4e) R.Co.; Latest Date: 4-28-36 (4e) R.Co.; Clutch Sizes: two sets with 2e, five sets with 3e, eight sets with 4e, seven sets with 5e.

Young: Ten records. 4-28-38 (3y) R. Co.; 5-2-39 (2y) R.Co.; 5-7-39 (3y) R.Co.; 5-7-39 (3y) R.Co.; 5-14-49 (3y1e) R.Co.; 5-17-72 (1y) R.Co.; 5-19-63 (3y) R.Co.; 5-24-38 (3y) R.Co.; 5-29-39 (4y) R.Co.; 6-27-37 (3y) R.Co.

GREAT HORNED OWL—Egg Dates: Four records. 1-25-42 (2e) R.Co.; 2-17-57 (2e) R.Co.; 3-8-36 (2e) R.Co.; 3-14-38 (1e) R.Co.

Young: Eight records: 2-21-38 (3y) R.Co.; 3-13-55 (2y) R.Co.; 3-14-38 (2y) R.Co.; 3-14-61 (2y) R.Co.; 3-19-50 (2y) R.Co.; 4-9-50 (2y) R.Co.; 4-14-57 (1y) R.Co.; 5-24-38 (3y) R.Co.

BARRED OWL—Egg Dates: One record. 3-7-36 (2e) R.Co.

SHORT-EARED OWL—Observations: 11-26-59 (1) shot R.Co.

CHUCK-WILLS-WIDOW—Egg Dates: Five records. 5-21-49 (2e) R.Co.; 5-23-36 (2e) R.Co.; 5-28-36 (2e) R.Co.; 6-8-36 (2e) R.Co.; 6-16-37 (1e) R.Co.

Young: One record. 5-28-38 (1y) R.Co.

COMMON NIGHTHAWK—Egg Dates: Seventy-three records, all R.Co. Earliest Date: 5-5-38 (2e) R.Co., 5-5-38 (2e) R.Co.; Median Dates: 5-28-38 (1e) R.Co. and 5-29-57 (1e) R.Co., 5-29-57 (2e) R.Co.; Latest Date: 7-14-37 (2e) R.Co.; Clutch Sizes: twelve sets with 1e, sixty-one sets with 2e.

Young: Six records. 5-30-38 (2y) R.Co.; 6-5-38 (1y) R.Co.; 6-5-50 (2y) R.Co.; 6-10-50 (1y1e) R.Co.; 6-22-50 (1y) R.Co.; 6-24-37 (1y) R.Co.

Observations: 5-23-36 (1 albino female) collected R.Co.

CHIMNEY SWIFT—Egg Dates: Eighteen records, all R.Co. Earliest Date: 5-20-38 (2e) R.Co.; Median Dates: 6-12-36 (4e) R.Co. and 6-15-36 (4e)

R.Co.; Latest Date: 6-30-37 (3e) R.Co.; Clutch Sizes: one set with 2e, four sets with 3e, ten sets with 4e, two sets with 5e, one set with 6e.

Observations: Dates of spring arrival, eighteen years records, all R.Co. Earliest Date: 3-25-54 (21) R.Co.; Median Dates: 4-5-70 (large flock) R.Co. and 4-6-58 (8) R.Co.; 4-6-65 (1) R.Co.; Latest Date: 4-20-57 (2) R.Co.

RUBY-THROATED HUMMINGBIRD—Egg Dates: Four records 5-10-36 (2e) R.Co.; 6-10-38 (2e) R.Co.; 6-12-36 (2e) R.Co.; 6-12-36 (2e) R:Co.

Young: 7-26-36 (1y1e) R.Co.

BELTED KINGFISHER—Egg Dates: One record. 6-13-37 (5e) R.Co.

Young: Four records. 5-16-37 (7y) Fr.Co.; 5-16-37 (7y) Fr.Co.; 5-28-37 (7y) R.Co.; 5-28-37 (7y) R.Co.

COMMON (YELLOW-SHAFTED) FLICKER—Egg Dates: Eighteen records, all R.Co. Earliest Date: 4-25-38 (8e) R.Co.; Median Dates: 5-28-38 (6e) R.Co., 5-28-38 (6e) R.Co., 5-28-38 (6e) R.Co. and 5-31-38 (6e) R.Co.; Latest Date: 7-1-71 (6e) R.Co.; Clutch Sizes: two sets with 2e, one set with 3e, two sets with 4e, two sets with 5e, eight sets with 6e, two sets with 7e, one set with 8e.

Young: Ten records. 5-20-38 (4y3e) R.Co., 5-22-37 (1y3e) R.Co., 6-4-37 (4y2e) R.Co., 6-8-37 (4y5e) R.Co., 6-8-52 (4y) R.Co., 6-17-38 (5y) R.Co., 6-18-38 (3y) R.Co., 6-25-37 (4y) R.Co., 6-28-37 (5y) R.Co., 7-2-50 (5y) R.Co.

PILEATED WOODPECKER—Egg Dates: Eleven records, all R.Co. Earliest Date: 4-10-38 (4e) R.Co.; Median Date: 4-24-37 (4e) R.Co.; Latest Date: 6-19-37 (2e) R.Co.; Clutch Sizes: two sets with 2e, three sets with 3e, four sets with 4e, two sets with 5e.

Young: One record. 5-19-40 (3y) R.Co.

RED-BELLIED WOODPECKER—Egg Dates: One record. 4-27-37 (4e) R.Co.

RED-HEADED WOODPECKER—Egg Dates: Four records. 5-26-38 (3e) R.Co., 5-27-37 (4e) R.Co., 5-29-38 (2e) R.Co., 6-11-37 (4e) R.Co.

Young: One record. 6-30-38 (4y) R.Co.

HAIRY WOODPECKER—Egg Dates: Two records. 4-7-38 (4e) R.Co., 4-19-38 (4e) R.Co.

DOWNY WOODPECKER—Egg Dates: Two records. 4-10-38 (5e) R.Co., 5-8-36 (5e) R.Co.

EASTERN KINGBIRD—Egg Dates: Twelve records, all R.Co. Earliest Date: 5-8-38 (4e) R.Co.; Median Dates: 6-3-36 (3e) R.Co. and 6-4-38 (3e) R.Co.; Latest Date: 6-22-69 (3e) R.Co.; Clutch Sizes: one set with 2e, eight sets with 3e, three sets with 4e.

Young: Six records. 6-4-38 (2y2e) R.Co., 6-11-38 (3y) R.Co., 6-21-38 (3y) R.Co., 6-30-61 (4y) R.Co., 7-7-37 (4y) R.Co., 8-3-72 (3y) R.Co.

Observations: Dates of spring arrival, seventeen years records, 16 R.Co., 1 Ca.Co. Earliest Date: 3-13-47 (1) R.Co.; Median Date: 4-17-63 (1) R.Co., 4-17-67 (1) R.Co.; Latest Date: 5-2-71 (2) R.Co.

GREAT CRESTED FLYCATCHER—Egg Dates: Five records. 5-20-57 (4e) R.Co., 5-26-38 (5e) R.Co., 6-7-53 (3e) R.Co., 6-10-36 (4e) R.Co., 6-10-38 (3e) R.Co.

Young: Two records. 6-20-38 (3y) R.Co., 6-30-38 (4y) R.Co.

Observations: Dates of spring arrival, sixteen years records, all R.Co. Earliest Date: 4-2-67 (1) R.Co.; Median Date: 4-24-55 (1) R.Co., 4-24-71 (1) R.Co.; Latest Date: 5-4-70 (1) R.Co.

EASTERN PHOEBE—Egg Dates: Thirty-eight records, all R.Co. Earliest Date: 3-29-38 (4e) R.Co.; Median Dates: 4-25-38 (4e) R.Co. and 4-26-37 (5e) R.Co.; Latest Date: 6-15-36)4e) R.Co.; Clutch Sizes: one set with 1e, two sets with 2e, three sets with 3e, sixteen sets with 4e, fourteen sets with 5e, two sets with 6e.

Young: Eight records. 4-11-38 (4y) R.Co., 4-23-50 (5y) R.Co., 4-24-38 (4y) R.Co., 4-30-38 (4y) R.Co., 5-20-38 (5y) R.Co., 5-23-37 (5y) R.Co., 6-6-48 (5y) R.Co., 6-20-38 (4y) R.Co.

EASTERN WOOD PEWEE—Egg Dates: Nine records. 5-24-38 (3e) R.Co., 5-26-38 (2e) R.Co., 5-29-37 (3e) R.Co., 5-31-38 (1e) R.Co., 6-1-38 (3e) R.Co., 6-6-38 (3e) R.Co., 6-15-36 (3e) R.Co., 6-17-36 (3e) R.Co., 6-27-38 (2e) R.Co.

Young: Four records. 6-15-37 (2y1e) R.Co., 6-15-37 (3y) R.Co., 6-30-38 (3y) R.Co., 7-30-38 (3y) R.Co.

ROUGH-WINGED SWALLOW—Egg Dates: Twenty-two records, nineteen R.Co., three Ca.Co. Earliest Date: 5-9-36 (7e) R.Co., 5-9-36 (7e) R.Co.; Median Date: 5-30-37 (5e) Ca.Co., 5-30-37 (5e) Ca.Co., 5-30-37 (5e) Ca.Co.; Latest Date: 6-13-37 (6e) R.Co.; Clutch Sizes: two sets with 1e, one set with 2e, one set with 3e, one set with 4e, seven sets with 5e, six sets with 6e, four sets with 7e.

Young: Two records. 5-10-38 (6y) R.Co., 5-22-38 (6y) Ca.Co.

BARN SWALLOW—Egg Dates: Nineteen records, fourteen Li.Co., five R.Co. Earliest Date: 5-15-69 (2e) R.Co.; Median Dates: 5-29-38 (2e) Li.Co., 5-29-38 (2e) Li.Co., 5-29-38 (3e) Li.Co., 5-29-38 (4e) Li.Co., 5-29-38 (5e) Li.Co., 5-29-38 (6e) Li.Co. and 6-6-37 (4e) Li.Co., 6-6-37 (4e) Li.Co., 6-6-37 (4e) Li.Co., 6-6-37 (5e) Li.Co., 6-6-37 (5e) Li.Co., 6-6-37 (6e) LiCo.; Latest Date: 7-11-68 (4e) R.Co.; Clutch Sizes: three sets with 2e, one set with 3e, seven sets with 4e, six sets with 5e, two sets with 6e.

Young: Eight records. 5-29-38 (4y) Li.Co., 5-29-38 (5y) Li.Co., 5-29-38 (5y) Li.Co., 5-29-38 (5y) Li.Co., 5-29-38 (6y) Li.Co., 6-6-37 (5y) Li.Co., 6-6-70 (4y) Li.Co., 7-22-69 (4y) R.Co.

PURPLE MARTIN—Egg Dates: Fifteen records, all R.Co. Earliest Date: 4-20-49 (5e) R.Co.; Median Date: 5-20-36 (6e) R.Co.; Latest Date: 6-18-37 (3e) R.Co., 6-18-37 (4e) R.Co., 6-18-37 (4e) R.Co.; Clutch Sizes: one set with 1e, one set with 2e, one set with 3e, four sets with 4e, five sets with 5e, three sets with 6e.

Young: Four records. 4-24-49 (4y) R.Co., 6-18-50 (3y) R.Co., 6-25-39 (4y) R.Co., 6-30-39 (6y) R.Co.

Observations: Dates of spring arrival, twelve years records, all R.Co. Earliest Date: 3-6-58 (1) R.Co., 3-6-59 (2) R.Co., 3-6-66 (2) R.Co.; Median Dates: 3-12-54 (2) R.Co. and 3-13-68 (1) R.Co.; Latest Date: 3-24-60 (2) R.Co., 3-24-65 (5) R.Co., 3-24-67 (10) R.Co. Dates of fall departure, thirteen years records, all R.Co. Earliest Date: 7-11-67 (20) R.Co.; Median Date: 8-16-67 (1) R.Co.; Latest Date: 9-1-59 (20) R.Co.

Band Recovery: 6-25-43 (1) banded at the Todd home, R.Co. recovered 10-5-43 at Mision Morava, Nicarauga, Central America.

BLUE JAY—Egg Dates: Forty-nine records, all R.Co. Earliest Date: 4-2-38 (5e) R.Co.; Median Dates: 5-5-36 (4e) R.Co. and 5-6-37 (5e) R.Co.; Latest Date: 6-30-37 (4e) R.Co.; Clutch Sizes: one set with 1e, three sets with 2e, five sets with 3e, twenty-three sets with 4e, seventeen sets with 5e.

Young: Nine records. 4-13-56 (5y) R.Co., 5-6-38 (4y) R.Co., 5-13-38 (5y) R.Co., 5-13-38 (5y) R.Co., 5-21-37 (4y) R.Co., 5-29-37 (5y) R.Co., 6-5-49 (1y2e) R.Co., 6-13-37 (2y2e) R.Co., 6-20-37 (4y) R.Co.

COMMON CROW—Egg Dates: Fifty-one records, all R.Co. Earliest Date: 3-21-38 (4e) R.Co.; Median Dates: 4-5-38 (4e) R.Co. and 4-6-38 (4e) R.Co., 4-6-38 (5e) R.Co., 4-6-38 (5e) R.Co.; Latest Date: 5-6-37 (3e) R.Co., 5-6-38 (5e) R.Co.; Clutch Sizes: one set with 1e, one set with 2e, six sets with 3e, eighteen sets with 4e, twenty sets with 5e, five sets with 6e.

Young: Ten records. 4-10-38 (2y4e) R.Co., 4-15-37 (4y) R.Co., 4-20-39 (5y) R.Co., 4-23-39 (5y) R.Co., 4-25-37 (4y) R.Co., 4-27-38 (2y) R.Co., 5-3-40 (3y) R.Co., 5-7-39 (4y) R.Co., 5-7-39 (3y) R.Co., 5-28-37 (4y) R.Co.

CAROLINA CHICKADEE—Egg Dates: Nineteen records, all R.Co. Earliest Date: 3-29-38 (3e) R.Co.; Median Date: 4-23-36 (7e) R.Co., 4-23-38 (4e) R.Co.; Latest Date: 5-8-36 (1e) R.Co.; Clutch Sizes: one set with 1e, one set with 3e, five sets with 4e, four sets with 5e, five sets with 6e, three sets with 7e.

Young: Five records. 4-19-38 (6y) R.Co., 5-1-37 (5y) R.Co., 5-9-37 (3y2e) R.Co., 5-9-37 (4y2e) R.Co., 6-19-38 (2y) R.Co.

TUFTED TITMOUSE—Egg Dates: Three records. 4-17-49 (3e) R.Co., 5-6-36 (6e) R.Co., 5-15-66 (8e) R.Co.

Young: One record. 4-19-38 (6y) R.Co.

BEWITKS WREN—Egg Dates: Seventy-nine records, all R.Co. Earliest Date: 3-15-38 (4e) R.Co.; Median Dates: 5-1-37 (1e) R.Co., 5-1-37 (6e) R.Co. and 5-3-37 (3e) R.Co.; Latest Date: 8-1-37 (4e) R.Co.; Clutch Sizes: two sets with 1e, two sets with 2e, three sets with 3e, seven sets with 4e, ten sets with 5e, twenty-nine sets with 6e, twenty-one sets with 7e, three sets with 8e, one set with 9e, one set with 12e.

Young: Twelve records, all R.Co. Earliest Date: 4-12-38 (7y) R.Co.; Median Date: 5-19-39 (6y) R.Co.; Latest Date: 7-20-67 (5y) R.Co.; Brood Sizes: one with 3y, one with 4y, five with 5y, four with 6y, one with 7y.

CAROLINA WREN—Egg Dates: Nine records. 3-27-38 (2e) R.Co., 4-10-36 (5e) R.Co., 4-17-50 (2e) R.Co., 4-24-36 (5e) R.Co., 4-24-38 (2e) R.Co., 5-13-64 (6e) R.Co., 5-17-64 (5e) R.Co., 6-4-50 (4e) R.Co., 7-3-38 (5e) R.Co.

Young: Two records. 5-26-52 (5y) R.Co., 7-28-40 (5y) R.Co.

MOCKINGBIRD—Egg Dates: Eighty-six records, eighty-five R.Co., one Ca.Co. Earliest Date: 3-29-38 (3e) R.Co.; Median Dates: 5-20-37 (1e) R.Co., 5-20-38 (5e) R.Co., 5-20-57 (3e) R.Co. and 5-28-38 (4e) R.Co., 5-28-50 (3e) R.Co., 5-28-69 (4e) R.Co.; Latest Date: 7-21-36 (4e) R.Co.; Clutch Sizes: eleven sets with 1e, seven sets with 2e, twenty sets with 3e, forty sets with 4e, eight sets with 5e.

Eighteen records, all R.Co. Earliest Date: 4-30-38 (4y) R.Co.; Median Dates: 6-6-70 (3y) R.Co. and 6-7-37 (4y) R.Co.; Latest Date: 8-8-65 (2y) R.Co.; Brood Sizes: two with 1y, four with 2y, six with 3y, six with 4y.

GRAY CATBIRD—Egg Dates: Sixteen records, fifteen R.Co., one Ma.Co. Earliest Date: 5-2-49 (2e) R.Co.; Median Date: 5-22-37 (5e) R.Co., 5-22-38 (5e) R.Co.; Latest Date: 7-4-37 (1e) R.Co.; Clutch Sizes: two sets with 1e, one set with 2e, five sets with 3e, six sets with 4e, two sets with 5e.

Young: One record. 7-4-37 (1y3e) Ma.Co.

BROWN THRASHER—Egg Dates: Seventy-eight records, all R.Co. Earliest Date: 4-6-38 (4e) R.Co.; Median Date: 5-7-38 (2e) R.Co.; Latest Date: 6-30-37 (3e) R.Co., 6-30-38 (2e) R.Co.; Clutch Sizes: nine sets with 1e, nine sets with 2e, twenty-four sets with 3e, twenty-nine sets with 4e, seven sets with 5e.

Young: Sixteen records, all R.Co. Earliest Date: 4-20-38 (3y) R.Co.; Median Dates: 5-20-37 (3y) R.Co., 5-20-37 (3y) R.Co.; Latest Date: 7-27-52 (3y) R.Co.; Brood Sizes: one with 1y, twelve with 3y, three with 4y.

AMERICAN ROBIN—Egg Dates: Thirty-nine records, thirty-eight R.Co., one Li.Co. Earliest Date: 3-31-38 (4e) R.Co.; Median Date: 4-28-36 (4e) R.Co.; Latest Date: 7-1-38 (3e) R.Co.; Clutch Sizes: three sets with 1e, one set with 2e, sixteen sets with 3e, nineteen sets with 4e.

Young: Eighteen records, all R.Co. Earliest Date: 4-11-38 (1y2e) R.Co.; Median Dates: 4-23-38 (3y) R.Co., 4-23-38 (3y) R.Co. and 4-27-38 (3y)

R.Co.; Latest Date: 8-10-38 (3y) R.Co.; Brood Sizes: two with 1y, two with 2y, eight with 3y, six with 4y.

WOOD THRUSH—Egg Dates: Three records. 5-14-38 (2e) R.Co., 5-23-36 (3e) R.Co., 5-28-38 (3e) R.Co.

EASTERN BLUBIRD—Egg Dates: Eighty-seven records, all R.Co. Earliest Date: 3-10-49 (4e) R.Co.; Median Dates: 5-1-37 (1e) R.Co., 5-1-37 (5e) R.Co. and 5-3-38 (5e) R.Co.; Latest Date: 7-28-38 (3e) R.Co.; Clutch Sizes: seven sets with 1e, four sets with 2e, nine sets with 3e, twenty-nine sets with 4e, twenty-eight sets with 5e.

Young: Forty-four records, all R.Co. Earliest Date: 4-2-38 (1y4e) R.Co.; Median Date: 5-17-37 (4y) R.Co.; Latest Date: 8-11-38 (4y) R.Co.; Brood Sizes: two with 1y, five with 2y, thirteen with 3y, ten with 4y, thirteen with 5y, one with 6y.

BLUE-GRAY GNATCATCHER—Egg Dates: Twenty-four records, all R.Co. Earliest Date: 4-11-38 (2e) R.Co.; Median Date: 5-6-36 (4e) R.Co.; 5-6-36 (5e) R.Co., 5-6-36 (5e) R.Co.; Latest Date: 6-10-50 (5e) R.Co.; Clutch Sizes: two sets with 2e, nine sets with 4e, thirteen sets with 5e.

Young: One record. 6-1-38 (4y) R.Co.

LOGGERHEAD SHRIKE—Egg Dates: Thirteen records, all R.Co. Earliest Date: 3-13-47 (1e) R.Co.; Median Date: 4-14-57 (2e) R.Co.; Latest Date: 5-9-36 (5e) R.Co.; Clutch Sizes: one set with 1e, three sets with 2e, one set with 4e, five sets with 5e, two sets with 6e, one set with 7e.

Young: Two records. 4-6-56 (6y) R.Co., 4-21-56 (6y) R.Co.

STARLING—Egg Dates: Seventy-five records, all R.Co. Earliest Date: 3-29-53 (2e) R.Co.; Median Date: 5-1-69 (4e) R.Co., 5-1-69 (5e) R.Co.; Latest Date: 6-22-67 (4e) R.Co.; Clutch Sizes: one set with 1e, two sets with 2e, three sets with 3e, twenty-three sets with 4e, thirty-five sets with 5e, nine sets with 6e, two sets with 7e, one set with 9e.

Young: Thirteen records, all R.Co. Earliest Date: 4-19-67 (4y) R.Co.; Median Date: 5-17-72 (4y) R.Co.; Latest Date: 6-22-69 (4y) R.Co.; Brood Sizes: two with 3y, seven with 4y, three with 5y, one with 6y.

WHITE-EYED VIREO—Egg Dates: Eight records. 4-28-48 (4e) R.Co., 5-6-36 (4e) R.Co., 5-14-36 (3e) R.Co., 5-24-38 (1e) R.Co., 6-19-38 (1e) R.Co., 7-7-37 (3e) R.Co., 7-11-37 (2e) R.Co., 7-19-38 (3e) R.Co.

Young: One record. 6-19-38 (2y) R.Co.

RED-EYED VIREO—Egg Dates: Three records. 6-5-36 (3e) R.Co., 6-24-38 (3e) R.Co., 7-1-38 (3e) R.Co.

Young: Two records. 6-12-37 (3y) R.Co., 7-5-38 (3y) R.Co.

YELLOW WARBLER—Egg Dates: Three records. 5-9-36 (5e) R.Co., 5-12-37 (5e) R.Co., 5-25-37 (4e) R.Co.

PRAIRIE WARBLER—Egg Dates: Four records. 4-30-38 (4e) R.Co., 5-8-36 (4e) R.Co., 5-13-38 (4e) R.Co., 7-25-37 (1e) R.Co.

Young: Two records. 7-17-37 (4y) R.Co., 7-24-38 (2y) R.Co.

KENTUCKY WARBLER—Egg Dates: One record. 5-15-38 (4e) R.Co.

COMMON YELLOWTHROAT—Egg Dates: Six records. 5-12-37 (4e) R.Co., 5-22-37 (4e) R.Co., 5-22-37 (4e) R.Co., 5-25-37 (1e) R.Co., 5-25-37 (3e) R.Co., 6-1-37 (3e) R.Co.

Young: Two records. 6-3-37 (4y) R.Co., 6-3-38 (4y1e) R.Co.

YELLOW-BREASTED CHAT—Egg Dates: Eight records. 5-20-38 (4e) R.Co., 5-21-36 (3e) R.Co., 5-22-36 (5e) R.Co., 5-22-38 (4e) R.Co., 5-29-37 (4e) R.Co., 6-18-38 (2e) R.Co., 6-21-37 (4e) R.Co., 6-23-37 (3e) R.Co.

Young: One record. 7-7-37 (4y) R.Co.

HOODED WARBLER—Egg Dates: One record. 5-17-36 (4e) R.Co.

HOUSE SPARROW—Egg Dates: Eleven records, all R.Co. Earliest Date: 3-29-53 (3e) R.Co., 3-29-53 (5e) R.Co.; Median Dates: 4-28-36 (4e) R.Co. and 5-25-36 (5e) R.Co.; Latest Date: 6-15-37 (6e) R.Co.; Clutch Sizes: one set with 3e, three sets with 4e, four sets with 5e, two sets with 6e, one set with 7e.

Young: One record. 430-52 (3y) R.Co.

EASTERN MEADOWLARK—Egg Dates: Fifty-three records, all R.Co. Earliest Date: 4-6-38 (3e) R.Co.; Median Date: 5-14-36 (6e) R.Co., 5-14-38 (5e) R.Co.; Latest Date: 7-8-68 (4e) R.Co.; Clutch Sizes: two sets with 1e, two sets with 2e, five sets with 3e, ten sets with 4e, thirty-one sets with 5e, three sets with 6e.

Young: Nine records. 4-25-38 (5y) R.Co., 5-3-63 (4y) R.Co., 5-3-63 (4y) R.Co., 6-2-38 (1y) R.Co., 6-3-37 (4y) R.Co., 6-5-38 (5y) R.Co., 6-19-37 (4y) R.Co., 6-28-37 (2y2e) R.Co., 7-6-61 (4y) R.Co.

RED-WINGED BLACKBIRD—Egg Dates: Forty-four records, twenty R.Co., thirteen Ma.Co., six Wa.Co., four Fr.Co., one Gr.Co. Earliest Date: 5-1-38 (3e) Wa.Co., 5-1-38 (4e) Wa.Co., 5-1-38 (4e) Wa.Co., 5-1-38 (4e) Wa.Co., 5-1-38 (4e) Gr.Co., 5-1-38 (4e) R.Co.; Median Dates: 5-16-37 (2e) Fr.Co., 5-16-37 (3e) Fr. Co., 5-16-37 (4e) Fr.Co., 5-16-37 (4e) Fr.Co. and 5-17-59 (4e) R.Co., 5-17-59 (4e) R.Co.; Latest Date: 7-4-37 (1e) Ma.Co., 7-4-37 (1e) Ma.Co., 7-4-37 (1e) Ma.Co., 7-4-37 (2e) Ma.Co., 7-4-37 (2e) Ma.Co., 7-4-37 (2e) Ma.Co., 7-4-37 (2e) Ma.Co., 7-4-37 (2e) Ma.Co., 7-4-37 (3e) Ma.Co., 7-4-37 (3e) Ma.Co., 7-4-37 (3e) Ma.Co., 7-4-37 (4e) MaCo., 7-4-37 (4e) Ma.Co.; Clutch Sizes: three sets with 1e, six sets with 2e, twelve sets with 3e, twenty-three sets with 4e.

Young: Fifteen records, nine Ma.Co., five R.Co., one Wa.Co. Earliest Date: 5-21-37 (1y3e) R.Co.; Median Date: 6-2-37 (2y) R.Co.; Latest Date: 7-19-70 (3y) R.Co.; Brood Sizes: two with 1y, five with 2y, eight with 3y.

ORCHARD ORIOLE—Egg Dates: Twenty-five records, all R.Co. Earliest Date: 5-8-38 (4e) R.Co.; Median Dates: 5-28-37 (5e) R.Co. and 5-29-36 (4e) R.Co., 5-29-37 (5e) R.Co.; Latest Date: 6-23-37 (4e) R.Co.; Clutch Sizes: one set with 3e, twelve sets with 4e, twelve sets with 5e.

Young: Five records. 6-3-38 (1y4e) R.Co., 6-4-37 (4y) R.Co., 6-7-53 (4y) R.Co., 6-14-37 (4y) R.Co., 7-1-38 (4y) R.Co.

Observations: Dates of spring arrival, fifteen years records, all R.C. Earliest Date: 4-14-72 (1) R.Co.; Median Date: 4-21-57 (1) R.Co., 4-21-63 (1) R.Co.; Latest Date: 4-27-58 (1) R.Co.

NORTHERN (BALTIMORE) ORIOLE—Probable Nesting: One record. 5-17-59 (2 birds) seen around what appeared to be an old nest in a Hackberry tree at the Todd homeplace at Trimble, R.Co. Another old nest was found in this same tree after the nesting season of the previous year.

COMMON GRACKLE—Egg Dates: Sixty-four records, all R.Co. Earliest Date: 4-11-38 (5e) R.Co.; Median Dates: 4-27-36 (6e) R.Co., 4-27-69 (5e) R.Co., 4-27-69 (5e) R.Co., 4-27-69 (5e) R.Co., 4-27-69 (5e) R.Co., 4-27-69 (5e) R.Co. and 4-28-36 (6e) R.Co., 4-28-37 (4e) R.Co., 4-28-37 (4e) R.Co., 4-28-37 (5e) R.Co., 4-28-37 (5e) R.Co., 4-28-37 (5e) R.Co., 4-28-68 (4e) R.Co., 4-28-68 (4e) R.Co., 4-28-68 (4e) R.Co., 4-28-68 (5e) R.Co.; Latest Date: 5-22-36 (4e) R.Co.; Clutch Sizes: three sets with 2e, two sets with 3e, twenty-two sets with 4e, twenty-nine sets with 5e, eight sets with 6e.

Young: Three records. 4-24-38 (3y3e) R.Co., 5-17-70 (4y) R.Co., 5-31-38 (4y) R.Co.

SUMMER TANAGER—Egg Dates: Nine records. 5-13-38 (2e) R.Co., 5-15-37 (3e) R.Co., 5-26-37 (3e) R.Co., 5-28-38 (3e) R.Co., 5-31-37 (3e) R.Co., 6-5-38 (3e) R.Co., 6-20-38 (2e) R.Co., 6-20-38 (3e) R.Co., 7-5-37 (3e) R.Co.

Young: Three records. 6-1-38 (2y) R.Co., 6-3-37 (1y2e) R.Co., 6-20-36 (1y1e) R.Co.

CARDINAL—Egg Dates: Thirty-eight records, all R.Co. Earliest Date: 4-5-38 (3e) R.Co.; Median Dates: 5-2-37 (3e) R.Co. and 5-6-38 (3e) R.Co.; Latest Date: 7-28-36 (3e) R.Co.; Clutch Sizes: three sets with 2e, thirty-four sets with 3e, one set with 4e.

Young: Two records. 6-6-38 (3y) R.Co., 6-12-52 (3y) R.Co.

Observations: 3-10-38 (an albino) was collected near Shiloh, R.Co.

INDIGO BUNTING—Egg Dates: Thirty records, all R.Co. Earliest Date: 4-21-57 (3e) R.Co.; Median Date: 6-19-37 (4e) R.Co.; Latest Date: 7-24-49 (4e) R.Co.; Clutch Sizes: four sets with 1e, two sets with 2e, sixteen sets with 3e, eight sets with 4e.

Young: Four records. 6-3-38 (4y) R.Co., 6-9-38 (3y) R.Co., 6-24-38 (2y) R.Co., 6-24-38 (3y) R.Co.

DICKCISSEL—Egg Dates: One record. 5-16-37 (2e) R.Co.

AMERICAN GOLDFINCH—Egg Dates: Eight records. 7-1-36 (5e) R.Co., 7-18-38 (4e) R.Co., 7-25-37 (5e) R.Co., 8-4-36 (4e) R.Co., 8-4-36 (4e) R.Co., 8-6-37 (5e) R.Co., 8-9-36 (5e) R.Co., 8-9-36 (5e) R.Co.

Young: One record. 7-25-37 (5y) R.Co.

RUFOUS-SIDED TOWHEE—Egg Dates: Twenty-three records, all R.Co. Earliest Date: 4-12-59 (3e) R.Co.; Median Date: 5-6-36 (3e) R.Co., 5-6-36 (5e) R.Co.; Latest Date: 7-5-37 (3e) R.Co.; Clutch Sizes: one set with 1e, one set with 2e, thirteen sets with 3e, seven sets with 4e, one set with 5e.

Young: Two records. 4-25-37 (3y) R.Co., 6-24-37 (1y) R.Co.

GRASSHOPPER SPARROW—Egg Dates: Ten records. 5-3-38 (4e) R.Co., 5-12-36 (1e) R.Co., 5-14-36 (5e) R.Co., 5-15-37 (5e) R.Co., 5-16-38 (5e) R.Co., 6-1-38 (3e) R.Co., 6-1-38 (4e) R.Co., 6-2-38 (1e) R.Co., 6-19-37 (2e) R.Co., 6-19-37 (4e) R.Co.

Young: Three records. 5-20-38 (4y1e) R.Co., 5-25-37 (1y4e) R.Co., 6-2-37 (4y) R.Co.

LARK SPARROW—Egg Dates: Seventeen records, all R.Co. Earliest Date: 5-6-38 (4e) R.Co.; Median Date: 6-9-38 (1e) R.Co.; Latest Date: 7-2-50 (3e) R.Co.; Clutch Sizes: one set with 1e, four sets with 3e, ten sets with 4e, two sets with 5e.

Young: Five records. 5-17-55 (5y) R.Co., 5-28-38 (4y) R.Co., 6-1-52 (4y) R.Co., 6-2-38 (3y) R.Co., 6-19-38 (3y) R.Co.

BACHMAN'S SPARROW—Young: One record. 6-7-36 (3y) R.Co.

CHIPPING SPARROW—Egg Dates: Thirty-seven records, all R.Co. Earliest Date: 4-13-56 (4e) R.Co.; Median Date: 5-15-37 (3e) R.Co., 5-15-37 (4e) R.Co.; Latest Date: 8-8-38 (1e) R.Co.; Clutch Sizes: four sets with 1e, nine sets with 2e, ten sets with 3e, fourteen sets with 4e.

Young: Four records. 5-9-37 (4y) R.Co., 6-19-49 (2y) R.Co., 6-21-38 (1y) R.Co., 7-1-38 (2y1e) R.Co.

FIELD SPARROW—Egg Dates: Forty-two records, forty-one R.Co., one Fr.Co. Earliest Date: 4-17-38 (4e) R.Co.; Median Dates: 6-3-38 (1e) R.Co. and 6-5-38 (1e) R.Co., 6-5-38 (3e) R.Co.; Latest Date: 7-28-36 (4e) R.Co., 7-28-36 (4e) R.Co.; Clutch Sizes: seven sets with 1e, five sets with 2e, eleven sets with 3e, nineteen sets with 4e.

Young: Eight records. 5-12-37 (1y3e) R.Co., 6-2-38 (4y) R.Co., 6-4-37 (4y) R.Co., 6-5-38 (4y) R.Co., 6-7-37 (2y) R.Co., 6-7-38 (4y) R.Co., 6-29-37 (3y) R.Co., 7-20-52 (3y) R.Co.

Observations: 12-25-38 (1 albino male) was collected R.Co.

4922 Sarasota Drive, Hixson, Tennessee 37343.

MINUTES OF THE ANNUAL SPRING MEETING, 1975

The 60th Annual Meeting of the Board of Directors of the Tennessee Ornithological Society was held on 4 May 1975 at the Holiday Inn in Columbia, Tennessee.

The meeting was called to order by the President, Mrs. Noreen Smith with 34 members present, five represented by proxy. The minutes from the May, 1974 meeting were approved as printed in *The Migrant*. An abbreviated form of the minutes of the Fall, 1974 meeting were read. The approval of the complete minutes will be in October, 1975 after they have been printed in *The Migrant*.

THE TREASURER'S REPORT was presented by Mr. Ken Dubke, the summary of which follows:

Balance on hand, 2 May 1975	$2,695.04
Income as Itemized	4,630.09
	$7,325.13
Disbursements as Itemized	4,325.13
Balance in Checking Account, 30 April 1975	2,999.97

Endowment Fund of 638.684 shares of M.I.T. at $9.80 per share for a total value of $6,259.10. Mr. Ganier's bequest of $1,000 was placed in the M.I.T. fund. The savings account showed a total of $5,388.70. There are 710 paid members for the 1975-1976 year.

REPORT OF THE FINANCE COMMITTEE: Mr. Oscar Patrick, Chairman of the Finance Committee gave the following report: After reviewing and discussing the finances of the Society, the committee by a unanimous vote recommends that the dues not be increased for 1976. The savings account in the amount of $5,388.70 which included the Gordon H. Briley Estate Bequest was received, and by a unanimous vote the committee recommends that the Tennessee Ornithological Society buy five certificates of deposit in a banking corporation or Federal Savings and Loans Association at the highest interest rate. The interest to be retained in the certificates of deposit. The committee recommends that at the discretion of the treasurer, the operating funds may be transferred between the checking account and a regular savings account for the purpose of accuring interest. Mr. Patrick moved that the recommendations be adopted, Dr. Lee Herndon seconded, the motion carried.

REPORT OF THE NOMINATING COMMITTEE: Mrs. E. E. Overton, Chairperson of the Nominating Committee, presented the slate of officers:

President: Ray Jordan
Vice-Presidents:
  West Tenn.—Julian Darlington
  Middle Tenn.—Paul Crawford
  East Tenn.—Bill Williams
Treasurer: Kenneth Dubke
Curator: James Tanner

Directors-at-Large:
  West—Mrs. C. K. J. Sumara
  Middle—David Hassler
  East—John DeVore
Secretary: Miss Louise Jackson
Editor: Gary O. Wallace

Mrs. Lula Coffey made a motion to accept the Nominating Committee's slate, Dr. George Mayfield seconded, the motion carried.

VICE PRESIDENTS' REPORTS: There were no reports from the Vice Presidents. Mrs. Noreen Smith, President, did state there might be a possibility of a Reelfoot Chapter being formed in the near future.

CONSERVATION REPORT: Mrs. Noreen Smith reported on the status of the Duck River Heronry. There are 79 nests with some activity. The trees within the heronry continue to die and fall because of the high water level maintained by the TVA. Dr. George Mayfield and Mr. Bill Yambert will work together in an effort to have TVA lower the water level in the area.

FIELD CARD REVISION COMMITTEE: The committee after several months of careful work completed the revision of the new field cards. The new cards were printed by the Tennessee Wildlife Resources Agency and will be distributed by them. A vote of thanks was made to the committee members: Dr. Katherine Goodpasture, Chairperson, Mr. Ben B. Coffey, Jr., Dr. George Mayfield, Rev. Bill Senter, Dr. James Tanner, Mr. Bill Yambert.

Chapters and individuals may order the new cards from the following addresses: Director, Tennessee Wildlife Resources Agency, Nashville, Tennessee 37204: or Mr. Bill Yambert, Tennessee Wildlife Resources Agency, Nashville, Tennessee 37204.

BREEDING BIRD CENSUS: Dr. Katherine Goodpasture reported that the Breeding Bird Census was complete last year and will be complete this year.

FORAY: Mrs. Noreen Smith presented information about the Foray. It will be held in Lauderdale County, 23, 24, 25 May. Motel information, maps and any additional information was made available. Chapters not present will receive information in the mail.

EDITOR'S REPORT: Dr. Gary Wallace made no report concerning *The Migrant*. He did note the members of the Certification Committee of New Species for Tennessee. They are: Dr. Gary Wallace, Chairperson, Dr. James Tanner, Dr. Katherine Goodpasture, Mr. Ben B. Coffey, Jr.

EMBLEMS/PATCHES: Mr. Ken Dubke reported that patches and emblems are still available. The total expense was $737.29 with $418.00 collected thus far.

DIXON MERRITT MEMORIAL: Reverend William Senter reported that the Dixon Merritt Committee had made the following advancements:

1) The State Department of Conversation had accepted the recommendations presented to them.

2) A site for a trail had not yet been selected. (Cedars of Lebanon State Park)

3) The old bathhouse has been renovated to a Nature and Interpretative Center named in honor of Dixon Merritt. (Cedars of Lebanon State Park)

There will be three descriptive plaques of etched aluminum placed in the structure. A motion was made by Rev. Senter that the T.O.S. underwrite

$120.00 for the center plaque. Dr. James Tanner seconded, the motion carried. The members of T.O.S. are asked to donate the necessary money for the plaque. The other two plaques will be provided by the Lebanon Chapter, the Wilson County Historical Society and the Family of Dixon Merritt.

ADDITIONAL BUSINESS: Reverend Senter moved to delete "college and university students" from Article II, Section 6 of the State Constitution. Dr. Arlo Smith seconded, the motion carried 27 to 7.

Mrs. Noreen Smith reported on Eagle Days at Reelfoot. There were guided tours and an evening interpretative program. The State plans to have Eagle Days every year and the T.O.S. members were urged to attend. The 1975 statewide census showed that there were 176 Bald Eagles in Tennessee (116 at Reelfoot) and 7 Golden Eagles.

RAPTOR NESTING CENSUS REPORT: Mr. Bill Yambert reported that the State has suggested a study of the raptors in the state. The method has not yet been determined. However, T.O.S. members will be asked to find and/or check nests. When information has been compiled it will be mailed to each chapter.

Mr. George Wessner reported a new edition printing of the *Birds of the Nashville Chapter*. They are for sale from the Nashville Chapter. The cost is $1.50 for members of T.O.S. and $2.00 for non-members.

A discussion then followed concerning the Directors-at-Large status. A suggestion was made to delete Directors-at-Large from the Constitution at the Fall meeting.

The Spring meeting for 1976 will be in East Tennessee. There was no invitation from any chapter.

The Fall meeting for 1975 will be 10, 11, 12 October at Holiday Hills at Crossville, TN. Rooms have been reserved for those who wish to make reservations early.

Martha Waldron, Recording Secretary

ANNUAL BUSINESS MEETING

Following the banquet at Holiday Inn, the Business meeting was called to order. Mrs. Noreen Smith, President, welcomed all the members. The roll was called with 112 members in attendance.

Mrs. Noreen Smith presented the items which had been discussed at the Board of Directors meeting. Mrs. Overton presented the new officers, a motion was made by Dr. George Mayfield to accept the slate. The motion was seconded and approved by the membership in attendance.

Miss Mary Davant reported for the Resolutions Committee. The report is attached as part of these minutes.

The speaker for the evening was Dr. Daniel Gray. He presented an interesting and informative talk on falconary.

Dr. Ray Jordan, our new President, gave a summary of ways T.O.S. can continue to be an active, viable force in bird study and conservation.

Mrs. Noreen Smith expressed appreciation to the various officers and committees for their efforts in making the meeting a success. The meeting was adjourned.

RESOLUTIONS

The Tennessee Ornithological Society, in meeting at Columbia, Tennessee 2, 3, and 4 May 1975 wishes to express its sincere appreciation to the Columbia Chapter for its gracious hospitality.

Thanks go to all the members, with special acknowledgment to the following committees: Co-chairman: George Mayfield, Day Gray; Publicity: Barbara Finney; Registration: Louise Hardison, Dot Byassee, Rachel Garrett, Mildred Walker, Mrs. W. G. Elder; Food: Mary Lucy Fuqua, Cleo Mayfield, Mary Lyles, Ann Lockridge; Decorations: Elizabeth Anderson, Dan Gray, Tom Hendrickson, Olin Hotchkiss, Bedford Lockridge, Bill Fuqua, Ed Byassee.

Respectfully submitted by the Resolutions Committee, Mary Davant and Ellen Stringer.

The LEBANON CHAPTER OF T.O.S. invites every T.O.S. member to be our guest for breakfast at Cedar Forest, 18 October 1975. We would like for you to become acquainted with the *Dixon Lanier Merritt Memorial Center.*

17 October:

8:00 P.M. — Owl Prowl, Stuckey's Parking Lot at I-40 and US 231.

18 October:

6:00 A.M. — Bird walks
8:00 A.M. — Breakfast

Any suggestions for nature trails or bird walks will be welcomed after you have had an opportunity to visit the center and the area. We will be happy to make reservations for you at one of the motels in Lebanon or you may prefer to camp in the park campground. Please let us know by 16 October if you can come.

ROUND TABLE NOTES

THE NESTING OF VIRGINIA RAILS IN HAWKINS COUNTY—On 27 April 1974, while searching a small marsh on Phipps Bend of the Holston River in Hawkins County, Tenn., we flushed an adult Virginia Rail (*Rallus limicola*). The bird flew about 30 feet and dropped back into the marsh. The rail had flushed within 5 feet of both observers and was seen clearly, making identification easy. One observer, having previously seen Virginia Rails, made a positive identification. The long, slightly decurved bill, small size and reddish brown color were easily seen. We went to the point from where the bird had flushed and discovered a nest containing 9 eggs. The nest was located in a clump of bulrush (*Scirpus* sp.) and sedge (*Carex* sp.). The lip of the nest was approximately 10 inches from the water surface. We made further efforts to see the bird at this time but were unsuccessful.

The marsh is located in a large pasture and comprises an area of about 8 acres. During most of the year, there is an abundant supply of water to the marsh, but in late summer and fall, the marsh is dry except for a small stream running through the center. Some small trees line parts of the stream and there is a stand of small trees in one part of the marsh. Sedges and rushes, along with some invading pasture grass made up most of the ground cover vegetation.

The marsh was visited again on 30 April, this time in company with Dr. Fred J. Alsop. Two additional Virginia Rail nests were found. One nest contained 7 eggs. Another partially destroyed nest was found in a recently burned section of the marsh and contained only eggshell fragments. One egg from the first nest was measured and found to be 35 by 23 mm. Bent, in his *Life Histories of North American Marsh Birds*, lists the average measurements of Virginia Rail eggs as being 32 by 24 mm. He states that the average size of the King Rail (*Rallus elegans*) is 41 by 30 mm. This would seem to eliminate the possibility of the eggs being those of the King Rail. Two Virginia Rails were observed on this visit.

On 1 May, Dr. Alsop attempted to photograph the adult on the nest, but the bird would not cover the eggs although he waited in a blind for 3 hours. Ten feet was as close as the bird would return to the nest.

Another visit to the marsh on 4 May revealed no change in either active nest. A Virginia Rail was observed near the first nest.

On 18 May, the first nest was found to contain only eggshell fragments, and the second nest contained 2 eggs. These 2 eggs were gone on 25 May.

We believe all three nests found were those of Virginia Rails and that they represent the second, third, and fourth reported nesting records of this species in Tennessee.

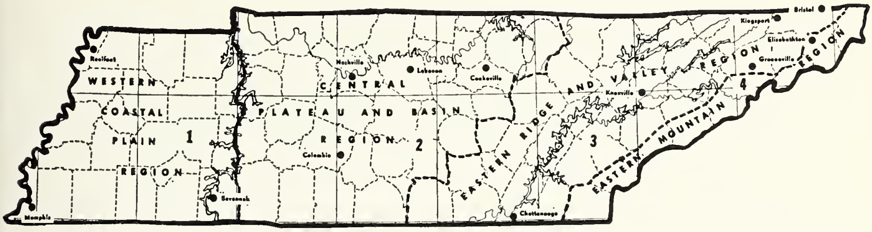
The first record of the Virginia Rail nesting in Tennessee was made by Mr. E. M. West on 5 May 1963 in the Amnicola marsh near Chattanooga (*The Migrant*, 34:20-21). There are two additional probable nesting records for the Virginia Rail in the southeastern U. S. known to us, one near Atlanta in 14 June 1970 (*Audubon Field Notes*, 24(5):672) and one at Leeville, Louisiana on 25 May 1969 (*Audubon Field Notes*, 23(5):668).

Soras (*Porzana carolina*) were heard calling from the marsh on 27, 30 April, 1 May, and 6 June.

Alan B. Smith, Route 1, WJSO Road, Johnson City 37601. Richard P. Lewis, Route 3, Box 683B, Erwin 37650. Fred J. Alsop, III, Dept. of Biology, Kingsport University Center, East Tennessee State University, Kingsport 37660.

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
Columbia
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

WINTER SEASON: 1 NOVEMBER - 15 MARCH

This long winter season found many Tennessee birders in the field across the State and produced many interesting records including some of species rarely recorded in Tennessee. This appears not to be a good winter for Northern Finches with few reports and fewer numbers even in the mountainous eastern sections of the State. However, our overall report of observations is incomplete due to the absence of the records from the Central Plateau and Basin Region which were not available when this report was written.

Several reports are of late migrating and wintering birds which normally don't stay this far north. There were many late observations of warblers, vireos, orioles, and grosbeaks especially in the Western Coastal Plain Region where a Cape May Warbler was observed on 9 January. Dunlin and Least Sandpipers both wintered in the Eastern Ridge and Valley Region in the Chattanooga area.

Perhaps the most unusual sightings are of a Black-headed Grosbeak and a Ground Dove in the Western Coastal Plain; Long-eared Owls near Greeneville, and a Red-necked Grebe near Chattanooga in the Eastern Ridge and Valley; a Red-throated Loon and a Surf Scoter were found in the Eastern Mountain Region. The Brant reported in the Hiwassee River Area last Season remained into this one until it was killed by a hunter.

Birders and fellow T.O.S. members, we need your help! Send your records to your regional compiler on a monthly basis. Don't wait until he requests them. Help us to get your journal out on time.

WESTERN COASTAL PLAIN REGION—The season's weather for this area averaged 3.2 degrees warmer on the whole. There were several strong fronts which swept thru the area. It was following these fronts that the *BLACK-HEADED GROSBEAK* was sighted. Precipitation was on the average about 1.30 inches above normal for each month except January when precipitation was 1.28 below normal.

The first Purple Martin scout was sighted in Memphis on 23 February. *The Migrant* has reported earlier dates for the Memphis area, i.e., 2-16-56 and 2-20-52. The average arrival dates have been around the first of March.

Cedar Waxwing had been scarce until Mid-January when several large flocks were sighted in different areas. A flock of approximately 1,000 was sighted in Audubon Park (city park in Memphis) 2 February.

Grebe-Eagle: Horned Grebe: 21 Nov. (3) L (BM). *OLD SQUAW:* 13 Feb. (1 male) Blue Basin, R (JL). Greater Yellowlegs: 7 Nov. (1) HDRU (JL). Pectoral Sandpiper: 19 Feb. (8) HDRU (JL). Avocet: 7 Nov. (2) HDRU (JL). *GROUND DOVE:* 3 Dec. (1) HDRU Photographed by Jerald Ledbetter, 6 Dec. (PC), 7 Dec. (MB). This is the 3rd TN record, the first was 06-04-1895 by Samuel Rhoads, which is considered doubtful, the second was one that was banded in Savannah, TN 10-2-68. *SHORT-EARED OWL:* 24 Nov. (1) HDRU (JL, DW). Sharp-shinned Hawk: 31 Dec., 3 Jan., 5 Jan. (1) Penal Farm, M (AL). *ROUGH-LEGGED HAWK:* 22 Nov. (1) R, south of Walnut Log Rd., R (DJ, BB), 25 Nov. (1) southeast Shelby Co. (LCC, MEC), 8 Dec. (2) Penal Farm, M, 13 Dec. (1) Penal Farm, M (HD, HSD), 25 Jan. (1) Raleigh (MEC). Bald Eagle: 10 Feb. (1 adult) H, DRU (JL).

Swallow-Sparrow: Tree Swallow: 10 Feb. (2) HDRU (JL) observed at 100′-200′. House Wren: 22 Nov. (1) Ellington Center (1) West of Lake R (BB, DJ), 25 Oct., 6 Nov., 4 Dec., 8 Dec., 13 and 14 Dec., 23 Dec., 30 Dec. (1) Raleigh (MEC). Solitary Vireo: 4 Nov. (1) D (VL). Tennessee Warbler: 6 Nov. (1) R (MEC). Orange-crowned Warbler: 5 Nov. (1) D (VL), 20 Dec. (1) 23 Dec., 7 Dec., 4 Jan., 7 Jan. (1) D (CH). Nashville Warbler: 18 Nov. (1) Raleigh (MEC). Cape May Warbler: 9 Jan. (1) HDRU (JL). Bay-breasted Warbler: 7 Nov. (1) M (HD). Palm Warbler: 24 Nov. (1) HDRU (JL, DW), 9 Jan. (2) HDRU (JL) same area as the Palm Warbler reported last winter, 19 Feb. (1) HDRU (JL) Common Yellowthroat: 19 Feb. (1) HDRU (JL). Brewer's Blackbird: 2 Jan. (20) Hatchie (JL). Northern Oriole: 6 Dec. (1) D (JL), 27 Jan. (1) G (MCS, MEC). Rose-breasted Grosbeak: 16 Nov. (1) M (BG). *BLACK-HEADED GROSBEAK:* 13 Jan. (1) M (AHB, HHD, BLC), this bird remained in the area approx. six days. Summer Tanager: 16 Nov. (1) M (HSD). Tree Sparrow: 22 Nov. (2) Walnut Log Rd., R (BB), 19 Feb. (7) H, DRU (JL), first for area.

Locations: L—Lakeview, MS (This area is just south of the Shelby County, TN line.) R—Reelfoot. HDRU—Hutsburg, Duck River Unit, Tennessee National Wildlife Refuge. Penal Farm—southeast Shelby County. Raleigh—northeast Shelby County. D—Dyersburg. M—Memphis. Hatchie—Hatchie River, Tennessee National Wildlife Refuge. G—Germantown, TN, east of Memphis, within Shelby Co.

Observers: BM—Bob McGowan. JL—Jerald Ledbetter. PC—Paul Crawford. MB—Mike Bierly. DW—Dick Whittington. AL—Allan Larrabee. DJ—Daniel Jacobson. BB—Brunson Block. LCC—Lula C. Coffey. MEC—Mrs. Ed Carpenter. HD—Helen Dinkelspiel. HSD—Henry S. Dinkelspiel. VL—Virginia Lamb. CH—Ceclia Hudson. AHB—Ann and Howard Brown. HHD—Henry and Helen Dinkelspiel. BLC—Ben and Lula Coffey. BG—Billy Grimm.

Martha Waldron, 1626 Yorkshire Dr., Memphis 38117.

EASTERN RIDGE AND VALLEY REGION—As was last year, this was a very wet winter. Temperatures averaged several degrees above normal and there was very little snowfall.

Very large flocks of Killdeer and American Robins were noted in the Chattanooga area. Few Ring-billed and Herring Gulls were reported, but wintering Bonaparte's Gulls appear to be increasing in numbers. This was an off year for northern finches in this Region. Purple Finches were present in lower than normal numbers and Pine Siskins were not found in the region. Evening Grosbeaks and Red-breasted Nuthatches were reported in a few areas.

Several unusual species were reported. Probably the most spectacular were two *Long-eared Owls* near Greeneville. These were the first to be observed in East Tennessee in many seasons. The Chattanooga area reported a *RED-NECKED GREBE,* a Pigeon Hawk, and two Rough-legged Hawks.

Loon-Bittern: Common Loon: 1-4 reg. at ChL and NL (KLD, DRJ); 4 Dec. (1), 24 Jan. (1), 14 Feb. (3) BL (MD, SG, EO). *RED-NECKED GREBE:* 18 Feb. (1) BWP (KLD) details to be published. Horned Grebe: 15 Nov. (4), 4 Dec. (5) BL (MD, HD, SG); 1-8 reg. from 18 Nov. at ChL, NL (KLD, DRJ, LSF). Double-crested Cormorant: 1-4 irreg. thru 13 Jan. at HRA (KLD); 15-21 Nov. (2) PHL (MD, SG, RL, GW, JW). Great Blue Heron: 24 Jan. (26) PHL (MD, SG); max. 3 Mar. (75) HRA (KLD). American Bittern: 16 Feb. (1) AM (DRJ).

Swan-Merganser: WHISTLING SWAN: 8 Nov. (1) BL (MD); 6-16 Jan. (2) BL (LRH, RL); 15-16 Feb. (2) SB (LD, et al). Canada Goose: 4 Dec. (1) BL (MD, SG); 19 Jan. (18) SeV (LSF); 17 Feb. (40) LM (GLB); reg. at CL, max. 8 Feb. (350) (JCH, JHu). *BRANT:* same bird as last period, present thru 21 Nov., when shot by hunter, at HRA (Arnold Aslinger, *fide* KLD). *WHITE-FRONTED GOOSE:* 3-10 Nov. (1 imm.) HRA (KLD, et al). Snow Goose, white morph: 1-5 Nov. (1) HRA (KLD, et al); 8 Feb. (1) CL (JCH, JHu); blue morph: 1-10 Nov. (24-26) HRA (KLD, et al); 1 Feb. (1) CL (JBO). Gadwall: 14 Dec. (1000) NL (LSF). Pintail: 1-20 sporatic at HRA, NL (KLD, DRJ); reg. at CL, max. 8 Feb. (10) (JCH, JHu). Green-winged Teal: reg. at CL, max. 18 Jan. (25) (JCH, JH, JHu); 3 Nov. (6), 10 Feb. (1) HRA (KLD); 22 Feb. (1), 7 Mar. (2) BL (MD, HD, SG, JW). Northern Shoveler: 7 Mar. (4) BL (MD, JW); 12 Mar. (3) NL (LSF). Wood Duck: 22 Dec. (27) AIM (MDW). Ring-necked Duck: max. 10 Mar. (250) BWP (KLD). Canvasback: 24 Feb. (2) BWP (KLD). Greater Scaup: max. wintering 100+ at ChL (KLD); 21 Feb. (1) Blountville (MD, SG, EO). Common Goldeneye: 1-19 occasional at ChL (KLD). Bufflehead: 15-34 reg. at HRA (KLD). Red-breasted Merganser: 10 Nov. (5) NL (DRJ); 2 Dec. (25) ChL (KLD); 8 Mar. (10 males) BL (LRH, DL, GW).

Vulture Coot: Turkey Vulture: roost at Da—22 Feb. (21) first returns (LSF); 1 Mar. (70) at roost, Da (LSF). Black Vulture: 26 Feb. (1) Wash. Co. (MD). Sharp-shinned Hawk: 14 Feb. (1) BL (MD); 7 sightings at HRA, BWP, and SB (KLD). Cooper's Hawk: 5 Nov. (1) HRA (KLD); 8 Feb. (1) CL (JCH, JHu); 8 Jan. - 11 Mar. (1 irreg.) JC (SG). Red-shouldered Hawk:

8 Dec. (1) CC (JMC, JCH); 15 Feb. (1) NR (JS); 6 Mar. (1) JC (SG). *ROUGH-LEGGED HAWK:* 17 Nov. (1, dark phase) BC (LD, DRJ, LMJ); 23 Nov. (1) BC (LSF). Golden Eagle: 16 Nov. (1) Cades Cove (MDW, Carol Gregory). Bald Eagle: 8 Feb. (1) NR (JS); 22 Dec. - 12 Mar. (1) Clinch River at Bull Run (Terry McGowan); 1-3 reg. at HRA (Wilford Caraway, KLD). Marsh Hawk: 7 records during period at HRA, SB (KLD, DRJ); 9 Mar. (1) K (CPN). Pigeon Hawk: 8 Mar. (1) SeV (LSF). Sandhill Crane: 16 Nov. (10) CC (JCH); 26 Nov. (75) Da (Debbie Shafer); 26 Nov. (1) SB (KLD); 3 Dec. (4) Da (David Shafer); 23 Feb. (40+) HRA (Robert Arnold, *fide* KLD); 1 Mar. (26) Yellow Creed (Don Hammer, *fide* KLD); 8-9 Mar. (19 roosted overnight) SB (KLD); 15 Mar. (18) Col (Todd Bowen, *fide* KLD). King Rail: thru period (1-2) AIM (MDW). Virginia Rail: 23 Dec. (8) AIM (MDW). Sora: 22 Dec. (1) AIM (MDW). American Coot: 14 Dec. (4000) NL (LSF).

Killdeer-Gull: Killdeer: very large migration recorded in Ch area, between 18 Nov. (220) HRA (KLD), and 21 Jan. (308) HRA and SB (KLD); max. 26 Nov. (416) HRA and SB (KLD); (last comparable migration 10 Nov., 1968 (590) HRA and SB (KLD). American Golden Plover: 15 Mar. (1) Da (LSF). Common Snipe: reg., max. 21 Jan. (113) HRA and SB (KLD). American Woodcock: first singing 22 Dec. (1) AM (KLD). Greater Yellowlegs: 1-2 reg. HRA and SB to 10 Nov. (KLD). Pectoral Sandpiper: 18 Nov. (1) HRA (KLD); 14 Mar. (1) SB (KLD). Least Sandpiper: 18 Nov. - 10 Feb. (5-41 reg.) HRA (KLD). Dunlin: reg. at HRA and SB, max. 5 Nov. (140) (KLD); 8 Nov. (5), 15 Nov. (8), 4 Dec. (6) BL (MD, SG). Bonaparte's Gull: 3 Nov. (3) ChL (LSF); 2 Dec. (7) HRA (KLD); 28 Dec. (1) NL (LSF); 21 Jan. (123), 10 Feb. (68), 17 Feb. (75) ChL (KLD).

Owl-Waxwing: Barn Owl: 1-3 reg. AM (DRJ); 2 thru period in JC (BK); 1 thru period in K (MDW). Barred Owl: 11 Jan. (1) JC (BK); 29 Jan. (1) JC (DJL); 5 Mar. (nest w/2 eggs) Ch (DRJ). *LONG-EARED OWL:* 9 Mar. (2) Kinser Park, Greeneville (Royal B. Spees), present thru end of period. Common Nighthawk: 4 Nov. (1) AM (KLD). Red-headed Woodpecker: 26 Feb. (1) Telford (MD, SG); several all period at Chickamauga, Ga. (KD). Horned Lark: 28 Feb. (3) NR (MD, SG); 15 Mar. (50) SeV (LSF). Tree Swallow: 6 Jan. (1) SB (KD); 25 Feb. (2) SB (KLD). Purple Martin: first arrivals 18 Feb. (1) Kingsport (V. Yankee, *fide* JBO); no more reported until several on 14 Mar. (JBO). Red-breasted Nuthatch: 1-3 sporatic, BWP and Col (KLD, CH); 5 Dec. (3) WW IDRJ); no other area reports. Long-billed Marsh Wren: 1 thru period, AIM (MDW). American Robin: 14 Dec. (10,000) SeV (LSF). Swainson's Thrush: 9 Nov. (1) SeV (LSF). Water Pipit: 5-15 Jan. (60+) T-CA (GE, LRH); 18 Nov. - 27 Feb. (5-60) HRA and SB (KLD); 2 Mar. (6) Dunlap (DRJ). Cedar Waxwing: 25 Feb. (300) Ch (DRJ); several flocks numbering in hundreds in late Feb. and Mar. at K (CPN, JBO, et al).

Vireo-Sparrow: Solitary Vireo: 17 Nov. (1) K (Mable Sanders). Pine Warbler: first singing 16 Jan. (1) Ch (KD). Rusty Blackbird: 5 Jan. (6), 18 Jan. (15) T-CA (GE, LRH); 9 Feb. (20) MP (DRJ); 16 Feb. (10) AM (DRJ); up to 75 thru period, AIM (MDW). Evening Grosbeak: very few reports—23 Nov. (1) LM (GLB); 7 Jan. - 22 Feb. (6-12) JC (SG); 28 Feb. (5) Signal Mtn. (LSF); 2 Mar. (30) SeV (LSF). Purple Finch: present in low numbers through period, 22 Jan. (100+) Lamar (RL); thru period (100+) Church Hill (Fred Alsop). Pine Siskin: no area reports. White-crowned Sparrow: 17 Jan. (100+) Telford (MD, SG). Fox Sparrow: 3 Mar. - 15 Mar. (1-3) JC (MD, SG, JS); 9 Mar. (3) LM (GLB).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; BC—Battle Creek; BL—Boone Lake; BWP—Booker T. Washington State Park; Ch—Chattanooga; ChL—Chickamauga Lake; CL—Cove Lake; Da—Daus; HRA—Hiwassee River Area; JC—Johnson City; K—Knoxville; LM—Lookout Mtn.; MP—Morse Pond, Ga.; NL—Nickajack Lake; NR—Nolichucky River; PHL—Patrick Henry Lake; SeV—Sequatchie Valley; T-CA—Tri-Cities Airport; WW—Wildwood, Ga.; SB—Savannah Bay.

Observers: GLB—Gary L. Bayne; MD—Martha Dillenbeck; HD—Helenhill Dove; KLD—Ken and Lil Dubke; KD—Ken Dubke; LD—Lil Dubke; GE—Glen Eller; SG—Sally Goodin; CH—Chris Haney; LRH—Lee R. Herndon; JH—James Holt; JCH—J. C. Howell; JHu—Jim Hubbard; DRJ—Daniel R. Jacobson; LMJ—Lemuel M. Jacobson; BK—Barney Keffer; RL—Richard Lewis; DL—Dick Lura; DJL—Dick and Joyce Lura; CPN—Charles P. Nicholson; EO—Elizabeth Osbourn; JBO—J. B. Owen; LSF—Lee Shafer Family; JS—Jake Slonaker; GW—Gary Wallace; JW—Jane Whitehead; MDW—Morris D. Williams.

Charles P. Nicholson, 6806 Haverhill Dr., Knoxville 37919.

EASTERN MOUNTAIN REGION—The weather for the period could be summed up in one word, "WET". Every month within the period had more rain than the 35 year average maintained by TVA. The first half of March more than doubled the month's average. A total of 11 inches of snow fell during the period, with the biggest accumulation of 3 inches falling on the night of 2 Dec. No extremely cold periods were recorded, with the lowest reading of 14 above coming on 9 Dec. and 14 Jan.

The water-fowl population was somewhat below normal, but the *RED-THROATED LOON* and Surf Scoter were excellent finds. There were very few reports of any "northern species". The Palm Warblers seen in Bristol throughout the reporting period are very noteworthy.

Have "YOUR" records been sent to the regional editor for publication?

Loon-Hawk: Common Loon: 16 Nov. (5) WatL (GE, GW); 15 Feb. (1) RC (GE, GW, HF, DL, LRH); *RED-THROATED LOON:* first sighting in area since 1966, 15 Feb. (1) RC (GE, GW, HF, DL, LRH), 22 Feb. (1) RC (DW, Paul and Dot Crawford); Horned Grebe: 14 Dec. (7) WatL (GW); Gadwall: 21 Dec. (2) WibL (GE, HF), 18 Jan. (1) Bri (DW and Mike Bierly); Green-winged Teal: 27 Nov. (5) WibL (HF); Wood Duck: 14 Dec. (5) SV (GE, HF, RL, GW); Redhead: 3 and 16 Nov. (1) WibL (GW); *OLD SQUAW:* 13 Jan. (2) WibL (LRH, GE); *SURF SCOTER:* 11 March (1) WatL (LRH and Lois Herndon); Hooded Merganser: 14 Dec. (2) WatR

(GE, HF, RL); Common Merganser: 28 Dec. (21) SHL (LRH, GE); Sharp-shinned Hawk: 21 Dec. (1) SV (GW); 24 Dec. (1) HC (TMS); 27 Jan. (1) RM (TMS); Cooper's Hawk: 14 Dec. (1) SV (GE, RL); 24 Dec. (1) HC (TMS); Red-shouldered Hawk: 14 Dec. (1) HS (GE, HF, RL); Marsh Hawk: 8 Nov. and 14 March (1) HC (TMS).

Gull-Blackbird: Ring-billed Gull: 16 Nov. (4) RC (GW, GE), 15 Feb. (1) RC (GW, HF, DL, GE); Herring Gull: 15 Feb. (2) RC (GW, HF, DL); Barred Owl: 15 Feb. (1) IMG (SG), 22 Feb. (1) RM (TMS, RV); Horned Lark: 14 Dec. (8) SV (HD), 8 March (7) SV (GE, MD, SG); Barn Swallow: first return 15 March (1) SV (HF); Purple Martin: first return 15 March (1) Eton (FWB); Raven: 1-3 irregularly on RM (TMS); Red-breasted Nuthatch: very plentiful at high elevation on RM (FWB, GE); Hermit Thrush: 14 Dec. (2) SV (GW), 28 Dec. (1) SHL (LRH, GE); Water Pipit: 14 March (1) SV (MD, SG); Pine Warbler: 15 March (3) WatL (GE); Palm Warbler: 22 Nov. (2), 16 Feb. (2), 17 Feb. (1), (1 irregularly thru end of period) Bri (DW); Rusty Blackbird: 14 March (2) SV (MD, SG); Brewer's Blackbird: 11 March (1), 14 March (5) all in SV (LRH, MD, SG).

Grosbeak-Sparrow: Evening Grosbeak: greatly reduced in numbers this year, 24 Dec. (93) RM (LRH, GE, TMS), 4 Feb. thru 11 March (15-20) Eton (HF), 3 March (2) Bri (H. C. Epperson); Purple Finch: 22 Nov. (3) 1 partial albino) Bri (DW), 15 Jan. (14) SV (GW, DL), 4 March (20) Eton (HF); Pine Siskin: 24 Dec. (56) RM (LRH, GE, TMS), 8 Jan. RM (TMS, RV); Red Crossbill: 15 March (1) HC (TMS, RV); Dark-eyed Junco (OREGON RACE): 1 irregularly thru Feb. at feeder in Bri (J. L. Cantwell); Chipping Sparrow: 21 Dec. (1), 8 Jan. (2) Eton (GE); White-crowned Sparrow: 7 Dec. (6) HS (GW); Fox Sparrow: 28 Dec. (1) SHL (LRH, GE), 15 Feb. (1) RC (LRH, GW, HF) 11 March (1) HC (TMS); Swamp Sparrow: 6 Jan. (1), 19 Jan. (1) HS (GW, GE).

Locations: Bri—Bristol, Eton—Elizabethton, HC—Heaton Creek near RM, HS—Hunter Swamp near Eton, IMG—Iron Mtn. Gap, RC—Roan Creek, RM—Roan Mtn., SHL—South Holston Lake, SV—Siam Valley near Eton, WatL—Watauga Lake, WatR—Watauga River, WibL—Wilbur Lake.

Observers: FWB—Fred Behrend, HD—Helenhill Dove, MD—Martha Dillenbeck, GE—Glen Eller, HF—Harry Farthing, SG—Sally Goodin, LRH—Lee Herndon, DL—Dick Lura, RL—Richard Lewis, TMS—Tommy and Maxie Swindell, RV—Ronnie Vance, DW—Diane Wilson, GW—Gary Wallace.

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The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

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SUMMARY: Articles of five or more pages in length should be summarized briefly, drawing attention to the main conclusions resulting from the work performed.

IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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VOL. 46, NO. 3

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915
A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

K-3

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 46 SEPTEMBER, 1975 NO. 3

NASHVILLE TELEVISION TOWER CASUALTIES, 1974

KATHERINE A. GOODPASTURE

Bird casualties collected at WSM and WNGE television towers during September and October 1974 gave the lowest count since systematic collection at both towers was begun in 1960. A total of 123 (34 species) dead birds including parts of birds that could be judged to represent a casualty is 42 less than the 165 collected in 1973 and stands in contrast to 556 collected in 1972 and 5,737 collected in 1968 (Goodpasture, *Migrant,* 1974, 45(3):57-59; *Ibid,* 45(2):29-30; Laskey, *Migrant,* 1969, 40(3):25-27).

Collection of casualties at the two towers followed the same pattern as in past years: early morning daily collection during September and October plus a collection 31 August and 1-11 November at WNGE and 1-3 November at WSM.

As in 1973 autumn weather fronts moved through in even temper without notable nocturnal violence or stormy force. The timing of movements did not seem to halt or overtake strong nocturnal migratory flights over Nashville. One Blackpoll Warbler collected at WSM 16 October sets a new late fall date for the species.

Explanation of low casualty lists for 1973 and 1974 cannot be clearly established. Continued observation and comparison with what is recorded in other parts of the continent may help answer some of the questions that surface immediately. First, it goes without saying that the timing and force of weather fronts influence the precipitation of birds migrating at night. A case in point as noted by Michael Bierly, coordinator of collection at WNGE, is the fact that a cold front passed through Nashville innocuously during the day of 13 September 1974. On the morning of 15 September about 700 dead birds were picked up at a tower near Decatur, Alabama about 100 miles due south of Nashville. Second, we ask whether fewer birds are migrating as a result of a decreasing population overall. If so, fewer birds would fall during nocturnal accidents. Long term studies like the Breeding Bird Surveys may eventually throw light on this question. Then we wonder whether our pick-up counts are distorted by an increased number of predators on the dead birds. Night prowlers like cats and early morning scavengers like owls and crows are known to pick up many casualty birds for food. An increase in the number of cats around

TABLE I

TELEVISION TOWER CASUALTIES, FALL 1974, NASHVILLE, TENNESSEE

SPECIES	WSM	WNGE	TOTAL	DATES
Virginia Rail	1	0	1	Sept. 17(1)
Sora	0	2	2	Sept. 14(1); 22(1)
Yel-billed Cuckoo	4	1	5	Sept. 16(1); 27(1); Oct. 6(1); 7(1); 10(1)
Common Flicker	0	1	1	Oct. 12(1)
Least Flycatcher	0	1	1	Aug. 31(1)
Ea. Wood Pewee	1	0	1	Sept. 16(1)
Brown Creeper	0	3	3	Oct. 24(1); 28(2)
Mockingbird	1	0	1	Oct. 20(1)
Gray Catbird	0	1	1	Oct. 1(1)
Wood Thrush	0	1	1	Sept. 30(1)
Hermit Thrush	0	1	1	Oct. 20(1)
Swainson's Thrush	1	0	1	Sept. 18(1)
Thrush Sp.	0	1	1	Oct. 13(1)
Red-eyed Vireo	4	2	6	Sept. 14(1); 22(2); 24(1); 26(1); Oct. 12(1)
Philadelphia Vireo	1	0	1	Sept. 17(1)
Black-and-white Warbler	3	5	8	Sept. 4(1,1); 9(1); 22(1); 24(1); 26(1,1); Oct. 4(1)
Tennessee Warbler	12	2	14	Sept. 18(1); 25(9); Oct. 1(1); 17(1); 21(1); 24(1)
Yellow Warbler	1	2	3	Aug. 31(1); Sept. 8(1); 22(1)
Magnolia Warbler	6	1	7	Sept. 15(1); 20(1); 22(1); 24(1); 26(1); 28(1); Oct. 16(1)
Yel-rumped Warbler	0	1	1	Oct. 27(1)
Black-tho. Green Warbler	2	2	4	Sept. 26(2); Oct. 3(1); 21(1)
Blackburnian Warbler	3	1	4	Sept. 14(1); 25(1); 26(1); Oct. 19(1)
Chestnut-sided Warbler	1	1	2	Sept. 4(1); 26 (1)
Bay-br. Warbler	11	2	13	Sept. 26(5); 30(1); Oct. 13(1); 15(1); 16(2); Oct. 17(1); 19(2)
Blackpoll Warbler	1	0	1	Oct. 16(1)
Palm Warbler	1	0	1	Oct. 24(1)
Ovenbird	3	1	4	Sept. 18(1); 26(2); Oct. 17(1)
Kentucky Warbler	0	1	1	Sept. 3(1)
Yellow-br. Chat	0	2	2	Sept. 3(1); 9(1)
Wilson's Warbler	1	0	1	Sept. 8(1)
Canada Warbler	0	1	1	Sept. 9(1)
American Redstart	1	2	3	Sept. 14(1); 22(1); 26(1)
Rose-br. Grosbeak	0	1	1	Oct. 4(1)
Savannah Sparrow	0	1	1	Oct. 28(1)
Song Sparrow	0	1	1	Oct. 21(1)
Unidentified	8	15	23	Sept. 3(1); 4(1); 18(1); 21(1); 22(1); 24(1); 26(3); 29(2); Oct. 4(2); 6(2); 13(1); 14(1); 15(1); 19(1); Nov. 3(2); 8(2)
TOTAL 34	67	56	123	

Numbers in parentheses () indicate birds collected that day. Underlined numbers indicate birds collected at WNGE, not underlined collected at WSM.

WNGE was definitely noted as well as an increase in the number of bunches of feathers and parts of birds as left by predators. Robert L. Crawford has discussed the problem of predation of dead birds at WCTV tower in Florida in Bulletin 18, Tall Timbers Research Station, November 1974.

Table 1 records in detail the 1974 casualties at WSM and WNGE television towers. The coordinated efforts of the following people make the collection of these dead birds a continuing study: Frances Abernathy, Ann Arnett, Sue Bell, Michael Bierly, Milbrey Dugger, Clara Fentress, William Finch, Katherine Goodpasture, Portia Macmillan, Anne Nichols, Oscar and Margory Patrick, Virginia Price and Ann Tarbell.

3407 Hopkins Lane, Nashville, Tennessee 37215.

* * * * * * * *

"EAGLE WEEKEND 1976"

REELFOOT LAKE STATE PARK

30, 31 January and 1 February, 1976

Headquarters for the weekend will be the Buford Ellington Assembly Hall.

Friday, 30 January

4:00-8:00 P.M. Registration, information, sign up for tours, set up displays and exhibits.

8:00 P.M. Orientation

"A Look at Reelfoot Lake" — Tennessee Naturalist Staff

"Tennessee's Endangered Species Program" — Bill Yambert, T.W.R.A.

"Reelfoot Lake Federal Refuge" — Wendall Crews

Saturday, 31 January

8:00-9:00 A.M. Registration, information, and sign up for tours.

9:00-11:30 A.M. Tours to Reelfoot Federal Refuge, Lake Isom, Reelfoot Lake by pontoon boat (weather permitting), as well as a special tour for photographers.

9:30; 10:30; 11:30 Movie "The Bald Eagle" at the museum.

1:00-4:00 P.M. Tours to Reelfoot Federal Refuge, Lake Isom, Reelfoot Lake by pontoon boat (weather permitting), as well as a special tour for photographers.

1:30-3:30 P.M. "The Wonder of Birds" a special program at the museum for amateurs.

1:30; 2:30; 3:30; 4:30 Movie "The Bald Eagle" at the museum.

6:30 P.M. Banquet at Ellington Assembly Hall.

8:00 P.M. Speaker

ANNUAL AUTUMN HAWK COUNT

Thomas W. Finucane

In 1974 the T.O.S. Hawk Count had one of its outstanding years, with 23,564 Broad-winged Hawks and a record of 369 hours of observation. Our five-year average (1970-1974) is 17,731, higher than the total for any of the 20 years of the project before 1970 except 1968, when the count was 24,036. The halfway point came on 20 September, three days early. More than 95% of the flight was recorded between 16 and 25 September.

There were five periods of adverse weather. Adele and Gene West at their station near Crossville had the first good count, 15 September, their fifth day in the field, but clouds were still heavy over our eastern stations on that day. Holston Mt. scored zero, and no one went to the Mendota Fire Tower. Next day 4300 Broad-winged Hawks were counted at Mendota under a thin overcast which lasted all day. There was almost no wind. For the first six hours the rate was greater than 300 hawks per hour, and counting, mostly done by Eugene Scott, was difficult. On that day also the Wests had 529 hawks under blue skies over Crossville.

Next day, 17 September, was cloudy and rainy over the whole area; flights were recorded only in the western part of our range. Then came three days of good weather. Five stations reported a total of ten days of outstanding hawk counts, including a count of 891 from Mrs. Bell and the Nashville group on their lookout at Bel Air, near Sparta.

Then on Saturday, 21 September, the weather was again unfavorable. Only three stations, all west of Crossville, reported: heavy fog at Bon Air, 12 hawks at Dunlap, and 65 at Walden's Ridge. But on Sunday seven stations had counts of 390 or more, and with three smaller counts the day's total was 6696.

On Monday Crossville had its highest count, but the Mendota Fire Tower and the Holston Mountain Radar Dome had a combined total of only 24 hawks. These three stations, in the order listed, had the most hours of observation in 1974. Charlotte Finucane provided nearly all the coverage on Holston Mountain and had three days with counts above 200, surpassed only by the Mendota Fire Tower, with five such days, and Crossville, with seven. We have never had a 200-hawk day at the Holston Mountain Fire Tower.

On Tuesday the weather worsened. Holston was blanketed by fog. Crossville's count was zero, and Lookout Mountain had only two Broad-wings. It was cold, dark, and windy at the Mendota lookout; the total count was 51 Broad-wings, just visible through binoculars, in one flight below a distant ridge. The sky was all black except for a bright blue crescent in the northeast, and it did not change while we waited shivering on the lookout for 3½ hours. Next day the weather was good again. Lookout Mountain had 750 in two hours, and the Gate City Fire Tower had 471 in 3½ hours. No one was on the Mendota Fire Tower.

ANNUAL AUTUMN HAWK COUNT 1974

No	Date	Obs	Hrs	Station	Alt	Wind	Sky	T	Shn	Cp	Rdt	Rs	Bdwg	Msh	Osp	Kst	Others
1	9/2	J	2	Elder Mt FT	1880	S-SW-2	3	75	-	-	-	-	2	-	-	-	- - -
2	4	J	2	Elder Mt FT	1880	N-3	3	65	-	-	-	-	9	-	-	-	- - -
3	4	LA	3	White Oak Mt FT	1425	NNE-3	3	60	-	-	-	-	5	-	-	-	- - -
4	7	T	4	Rog Kyle Ford FT	2401	SE-E-2	2	72	2	1	8	-	13	-	1	-	- - 2
5	8	C	3	Holston Mt Radar	4000	S-2	2	-	-	-	-	-	3	-	-	-	- - -
6	11	W	3½	7 mi N of Crossvl	1860	SW	5	78	-	-	-	-	30	-	-	-	- - -
7	12	W	3	7 mi N of Crossvl	1860	SW-2	3	82	-	-	1	-	16	-	-	2	- - -
8	13	W	4½	7 mi N of Crossvl	1860	SW-2	4	-	-	-	-	-	-	-	-	-	- 1b -
9	15	LX	5	White Oak Mt FT	1425	ENE-3	1	69	3	-	3	-	116	-	-	-	- - -
10	15	U	1	Elder Mt FT	1880	-	2	75	-	-	-	-	38	-	-	-	- - -
11	15	W	7½	7 mi N of Crossvl	1860	NW-2	1	-	-	-	1	-	215	-	-	-	- 1b 2f
12	15	C	1½	Holston Mt Radar	4000	-	5	65	-	-	-	-	-	-	-	-	- - -
13	16	I	1	Alto, Tennessee	-	S-2	1	55	-	-	-	-	15	-	-	-	- - -
14	16	H	1	Chattanooga, Tenn	-	-	3	-	-	-	-	-	64	-	-	-	- - -
15	16	KL	1	Hiwassie Riv area	-	-	0	-	-	-	-	-	31	-	-	-	- - -
16	16	W	7	7 mi N of Crossvl	1860	E-NE-1	2	-	-	-	-	-	525	-	-	-	- 3b 1f
17	16	J	2	Elder Mt FT	1880	N-NE-1	3	-	1	1	-	-	5	-	-	-	- - -
18	16	BC	8	Holston Mt Radar	4000	SE-1	0	-	1	-	-	-	32	-	1	2	- - -
19	16	FQS	8	Mendota Fire Towr	3018	S-2-0-N	5	65	-	1	-	-	4300	1	-	2	- - -
20	17	M	9	Fall Crk Falls FT	2026	WNW	5	65	-	-	-	1	54	-	-	2	1a 1E 2f
21	17	KL	5	White Oak Mt FT	1425	NW-3	5	68	-	-	2	-	99	-	-	-	- - -
22	17	W	7	7 mi N of Crossvl	1860	var	4	75	-	-	-	-	54	-	-	-	- - 1
23	18	M	7	Fall Crk Falls FT	2026	N-3	1	70	-	-	-	-	-	1	-	-	- - -
24	18	G	1	Sewanee, Tenn.	-	SW-3	1	73	-	-	-	-	41	-	-	-	- - -
25	18	H	5	Dunlap FT	2240	N-3	0	-	-	-	-	-	100	-	-	-	- - -
26	18	W	6	7 mi N of Crossvl	1860	NE	2	-	-	1	-	-	641	-	-	-	1a - -
27	18	C	6	Holston Mt Radar	4000	light	1	-	1	-	-	-	211	-	-	-	- - 1
28	18	FQS	8½	Mendota FT	3018	var-1	1	57	3	4	3	2	2874	4	5	G	Eagles-2
29	19	W	7½	7 mi N of Crossvl	1860	calm	1	-	-	-	-	-	357	-	-	1	- 2b -
30	19	BC	7½	Holston Mt Radar	4000	S-3	1	66	-	-	-	-	557	-	-	-	- - -
31	19	FSY	6½	Mendota FT	3018	S	0	75	3	2	8	-	435	-	4	2	1a - -
32	20	N	10	near Bon Air TN	1800	SW-3	2	75	-	-	5	1	885	-	-	-	- - -
33	20	G	1	Sewanee Tenn	-	S-3	2	72	-	-	-	-	6	-	-	-	- - -
34	20	LG1	2	White Oak FT	1425	S-3	3	72	-	-	-	-	58	-	-	-	- - -
35	20	W	5½	7 mi N of Crossvl	1860	SE-2	2	-	-	1	-	-	362	-	1	-	- 1b -
36	20	F	9	Mendota FT	3018	S-2	2	75	1	-	1	-	1889	-	1	1	- - -
37	21	N	-	near Bon Air Tenn	1800	heavy fog		55	-	-	-	-	-	-	-	-	- - -
38	21	L	3	Dunlap FT	2240	W-4	5	65	2	-	-	1	9	-	-	-	- - -
39	21	K	9	Signal Mt Walden Rdg	-	SW-3	3	75	1	1	1	-	65	-	-	1	- - -
40	22	N	6	near Bon Air Tenn	1800	N-4	1	55	1	3	4	-	9	2	1	2	- 3b -
41	22	M	7	Fall Crk Falls FT	2026	NW-4	2	60	1	-	1	-	495	-	-	2	1B Eagle
42	22	Mc	8	Sunset Rok Monteagle	-	B-4	2	65	-	-	1	1	15	-	1	2	- 3b 1f
43	22	Ef	1	Manchester Tenn	-	NE-4	1	74	-	-	-	-	24	-	-	-	- - -
44	22	K	8	Signal Mt Walden Rdg	-	N-3	2	80	1	-	1	-	387	-	-	-	1a
45	22	J	7	Lookout Mt Hi Pt FT Ga	-	N-4	1	65	1	-	4	-	394	1	-	-	Peregrine
46	22	EW	6½	7 mi N of Crossvl	1860	N-E-1	1	-	-	-	-	-	524	-	-	-	2a 1b 2f
47	22	BCZ	7½	Holston Mt Radar	4000	N	2	46	-	1	1	-	640	-	-	-	- - 1u
48	22	TR	8	Rog Kyles Ford FT	2401	E-NW-3	2	65	1	-	3	-	496	-	-	-	1a 12u
49	22	FOQ	9	Mendota FT	3018	NE-4-0	2	55	-	-	-	-	3647	-	-	-	- - -
50	23	W	7½	7 mi N of Crossvl	1860	NE & NW	3	55	-	-	-	-	944	-	-	-	1a 2u 2f
51	23	C	4	Holston Mt Radar	4000	S-1	2	45	-	-	1	-	4	-	-	-	- - -
52	23	FSGi	4	Mendota FT	3018	SE-6	0	47	1	2	-	-	16	-	-	-	- - -
53	24	DBc	1	Lookout Mt Hi Pt FT Ga	-	SE-4	5	50	-	1	-	-	2	1	-	-	2a - -
54	24	W	3½	7 mi N of Crossvl	1860	v-2	5	51	-	-	-	-	-	-	-	-	- - -
55	24	F	3½	Mendota FT	3018	SE-5	5	49	-	-	-	-	51	-	-	-	- - -
56	25	I	1	Alto near I-24 TN	-	S-1	1	60	-	-	-	-	46	-	-	-	- - -
57	25	D	2	Lookout Mt Hi Pt FT Ga	-	ESE-1	3	65	-	-	-	-	750	1	-	-	2a - -
58	25	W	5½	7 mi N of Crossvl	1860	var	5	64	-	-	-	-	73	-	-	-	- - -
59	25	Geo	½	Holston Mt FT	4145	-	-	-	-	-	-	-	88	-	-	-	- - -
60	25	F	3½	Gate City FT	3300	S & SW	2	-	-	1	3	-	466	-	1	-	- - -
61	26	D	1	Lookout Mt Hi Pt FT Ga	-	SSE-4	2	70	2	-	6	-	10	-	-	-	Merlin 1b
62	26	W	7	7 mi N of Crossvl	1860	v 0-1	2	70	-	-	-	-	49	-	-	-	- 1b -
63	26	CF	5	Holston Mt Radar	4000	v	-	56	1	1	-	-	29	-	-	-	- - -
64	27	FPS	5½	Mendota FT	3018	SW-5	2	61	1	-	5	-	44	-	-	-	1a 1b -
65	28	HM	5	Fall Crk Falls FT	2026	SW-SE	2	68	-	-	4	2	90	-	-	-	1Eagle -
66	28	K	10	Signal Pt Walden Rdg	-	SW-3	2	75	7	-	2	-	67	-	1	1	- - -
67	28	U	2	Elder Mt FT	1880	N-3	3	60	1	1	-	-	1	3	1	-	- - -
68	28	DJCh	2	Lookout Mt Hi Pt FT Ga	-	SE-3	1	65	3	1	-	-	1	1	-	-	- - -
69	28	W	2	7 mi N of Crossvl	1860	SE-SW	2	72	-	2	-	-	20	-	-	-	- - 1u
70	28	B	8	Holston Mt Radar	4000	N	5	50	1	-	-	-	3	-	-	-	- - 1u
71	28	71	3½	Mendota FT	3018	3	5	75	10	-	-	-	20	-	-	2	- - -
72	29	K	9	Signal Point	-	WNW-4	3	65	2	-	2	-	10	-	-	-	- 1b -
73	29	J	3	Elder Mt FT	1880	W-NW-3	3	60	1	-	1	-	18	-	1	-	- - -
74	29	W	1½	7 mi N of Crossvl	1860	WSW	5	-	-	1	-	-	10	-	-	-	- 1b -
75	29	C	5½	Holston Mt Radar	4000	-	5	-	1	-	2	1	3	-	-	-	- - -
76	29	76	6	Mendota FT	3018	NW-6	3	62	6	4	1	1	1	-	-	8	- - -
77	30	M	3	Fall Crk Falls FT	2026	W-3	0	65	-	-	1	-	-	1	-	1	- - -
78	30	F	7	Mendota FT	3018	0	0	50	-	-	2	-	1	-	-	1	- 1b -
79	10/1	FP	4½	Mendota FT	3018	S-1	0	64	3	2	2	-	-	-	-	1	- - -
80	2	DBc	1	Lookout Mt Hi Pt FT	-	SW	-	-	-	-	1	-	-	-	-	1	- - -
TOTALS			369						62	32	81	10	23,564	16	19	34	73

The 20 hawk counts after 25 September added only 377 Broad-winged Hawks, with a high of 90 at Fall Creek Falls. On 29 September a strong northwest wind blasted the Mendota Fire Tower and scattered my data sheets out over the trees below. Fortunately, Dick Peake, VSO President, had been keeping a separate record. We had 10 accipiters and 8 kestrels quickly passing close to the ridge, Coopers on the south side and Sharp-shins on the north side. There was one Broad-wing, flying in the wind like the accipiters, but awkwardly.

The other species of hawks were 1.4% of the total, a little above average for a season with only 5½ hours of observation in October. The count was 327, including 67 unidentified. Good days for Broad-winged Hawks were not always good days for other species. For example, on 18 September the Mendota Fire Tower had 2874 Broad-wings, 23 other hawks, and a total of eight species, including two Golden Eagles. Four days later the count there was 3647 Broad-wings and no other hawks. Eagles were also seen at the Fall Creek Falls Fire Tower: one unidentified, 17 September, and one Bald Eagle, 22 September, both reported by Mary Shafer, and another unidentified, 28 September, reported by Lee and Mary Shafer. Daniel Jacobson reported the only Peregrine. It flew within several hundred feet of the High Point Fire Tower on Lookout Mountain.

The Hawk Migration Association of North America, established in the summer of 1974, has issued its first Journal, describing the 1974 fall hawk migration. Our T.O.S. stations are in their Southern Appalachian Region. Many of our T.O.S. hawkwatchers are members of the HMANA. This new organization should make our hawk studies even more interesting and provide all regions the opportunity to learn more about hawk migration.

KEY TO REPORTERS

A—Ann Gibson; B—Fred Behrend; Bc—Dave Beckner; C—Charlotte Finucane; Ch—Chris Bayne; D—Gary Bayne; E—Helen Lewis; F—Tom Finucane; G—Marion Cunningham; Geo—George Montgomery; Ef—Effie Boyd; Gi—James Gilreath; H—Lee Shafer; I—Stanley and Carol Barr; J—Daniel Jacobson; K—Ken Dubke; L—Lil Dubke; M—Mary Shafer; Mc—Sanford McGee; N—Mrs. Bell's Nashville party; O—Homer and Garland Osborne; P—Jim Price; Q—Bob Quillen; R—Richard Nevius; S—Eugene Scott; T—Tom Odom and Tom III; U—Lemuel Jacobson; V—Mrs. Tom Odom; W—Adele and Gene West; X—John and Nancy DeVore; Y—Jim Gilliam, Steve Haynes, Bob Hale; Z—Glen Eller; 71—Roy and Hattie Allen, Arthur and Elizabeth Smith; 76—Betty Gibson, Richard, Martha, Tommy Peake, Tom Finucane.

Wind data in the table are reduced to the Beaufort Scale: 0 to 6 for 0 to 24 mph. Sky: 0 to 5 stands for nearly perfectly clear to heavily overcast. More complete descriptions of weather are available on the field sheets.

1975 SPRING FIELD DAYS

MORRIS D. WILLIAMS

During the three-week period from 19 April to 10 May, observers across Tennessee saw about 80% of all the birds which normally occur within the state during the year. The total count for the spring field days, 216 species, is the highest ever recorded during the thirty years in which the counts have been conducted. The competitive spirit that exists among observers across the state and within chapters will probably cause the present record to be broken in future years—providing of course that we continue to fight for the preservation of habitat which is essential to the existence of our birdlife.

The Yellow-headed Blackbird is the most unusual species on this year's list. As you look at the tabulation, pay particular attention to the impressive list of shorebirds.

INFORMATION ON THE COUNTS

MEMPHIS: 27 April—Shelby Forest State Park in the morning, Ensley-Darwin Levee in the afternoon. Ben B. Coffey, Jr., compiler, 672 N. Belvedere, Memphis 38107.

REELFOOT—11 May—Lake County and Western portion of Obion County. Memphis TOS, Ben B. Coffey, Jr., compiler, 672 N. Belvedere, Memphis 38107.

LAWRENCE COUNTY: 4-5 May—Lloyd Clayton in Western portion of County, Charles P. Nicholson and Morris D. Williams around Five Points.

COLUMBIA: 3-4 May—State Meeting—Field trips into portions of Maury, Lewis, and Lawrence County. Field trip leaders: Kenneth Anderson, Ed Byasse, Lloyd Clayton, Bill Fugua, Dan Gray, Tom Hendrickson, Olin Hotchkiss, Bedford Lockridge, George Mayfield, Jr. (compiler—Maury County Hospital, Columbia 38401).

NASHVILLE: 26-27 April—30 mile radius of Nashville; clear, 55 to 84° F, wind N to S, 5-10 mph. 46 observers in 8 parties and 9 yards. Alder Flycatcher identified by song. Frances Abernathy, Martha Allen, Clyde Anderson (compiler—1214 McGavock Pike, Nashville 37216), Vivian Anderson, Russell Artist, Sue Bell, E. A. Bergstrom, Mary Ann and Roy Broster, Sue Carney, Annella Creech, Elaine Davidson, Milbrey Dugger, Adele Elam, Clara Fentress, Evelyn and John Ellis, Bill and Lucy Finch, William Fintel, Mel Garland, Katherine Goodpasture, Ben Groce, Johnny Herbert, Evelyn Herron, Evelyn Holt, Carol Knauth, Margaret Mann, George and Pauline Miller, Fanny Murphy, Elizabeth Murray, Marge and Oscar Patrick, Virginia Price, Betty Richards, John, Heather, and Natusha Riggins, Ed Schreiber, Bill Scurlock, Ann Tarbell, Bessie Walker, Kenneth and Sara Walkup, Miriam Weinstein.

MURFREESBORO: 26-27 April—sunny 80° F; 20 observers. Anne Hettish, compiler, 1018 Lawndale Dr., Murfreesboro 37130.

1975 SPRING COUNT

	Mem	Reel	Law	Colu	Nash	Murf	Leb	Tull	Cook	Chat	Knox	Smok	Green	King	Bri	Eli
Common Loon	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Pied-billed Grebe	4	1	--	18	2	2	2	1	--	2	1	--	--	1	1	4
Great Blue Heron	--	11	--	--	--	2	2	1	--	2	1	--	1	1	--	--
Green Heron	2	13	1	19	19	3	6	2	--	3	3	--	2	2	--	17
Little Blue Heron	2	5	--	1	--	--	--	--	1	--	--	--	--	--	--	2
Cattle Egret	19	1	--	--	3	--	--	--	--	--	--	--	--	--	--	--
Great Egret	--	8	--	--	--	--	--	--	--	2	--	--	--	1	--	--
Bl.-cr. Night Heron	--	--	--	--	16	--	5	--	--	--	10	--	--	--	--	2
Yel.-cr. Night Heron	7	1	--	--	--	--	2	--	--	5	--	--	--	--	--	1
Least Bittern	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
American Bittern	--	--	--	--	1	--	--	1	--	--	--	--	--	3	--	2
Canada Goose	--	--	--	5	35	--	38	5	--	50	14	--	--	--	--	--
Mallard	7	10	--	10	18	2	23	2	--	7	--	--	7	16	12	14
Black Duck	--	--	--	--	2	--	--	--	--	--	--	--	2	--	--	--
Blue-winged Teal	22	1	--	22	7	4	4	4	--	16	9	--	16	--	--	46
American Wigeon	--	--	--	2	--	--	--	--	--	1	--	--	--	--	--	8
Wood Duck	23	24	--	17	8	--	15	2	--	20	18	--	11	29	--	41
Ring-necked Duck	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--	2
Lesser Scaup	--	--	--	1	--	--	--	--	--	2	--	--	6	--	--	2
Common Goldeneye	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bufflehead	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	48
Ruddy Duck	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hooded Merganser	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Red-br. Merganser	--	--	--	--	4	--	--	--	--	1	--	--	--	--	--	--
Turkey Vulture	--	--	26	43	46	12	14	--	3	28	3	8	13	8	8	18
Black Vulture	1	1	--	22	44	14	1	--	--	8	--	3	--	--	--	1
Mississippi Kite	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sharp-sh. Hawk	--	--	--	1	--	--	--	--	--	1	--	--	1	--	--	--
Cooper's Hawk	--	--	--	--	1	--	1	--	2	1	1	--	1	--	--	2
Red-tailed Hawk	--	5	14	9	25	3	5	--	2	5	4	1	4	2	--	5
Red-should. Hawk	--	1	9	2	10	--	--	--	--	1	1	--	--	--	--	--
Broad-winged Hawk	1	1	--	8	3	--	1	--	2	6	5	1	--	2	--	11
Golden Eagle	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Marsh Hawk	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
Osprey	--	2	--	1	3	--	--	--	--	2	5	--	1	--	1	5
American Kestrel	1	2	4	19	18	13	7	1	5	1	2	--	--	4	4	6
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	2	--	1	1	--	6
Bobwhite	10	11	27	70	92	31	28	4	18	14	98	--	42	35	18	36
Ring-nk. Pheasant	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
Turkey	3	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--
King Rail	--	--	--	--	--	--	2	--	--	2	--	--	--	--	--	--
Virginia Rail	1	--	--	2	--	--	--	--	--	--	--	--	--	--	--	2
Sora	1	--	--	5	--	--	--	--	--	1	2	--	--	1	--	3
Common Gallinule	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	1
American Coot	6	2	--	29	26	2	12	14	2	100	14	--	9	--	4	25
Semipalmated Plover	--	11	--	11	--	--	--	--	--	1	--	--	--	--	--	--
Killdeer	1	31	17	32	43	32	32	6	8	23	68	--	12	34	18	49
Am.Golden Plover	--	413	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Black-bel. Plover	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Woodcock	--	--	--	3	3	--	--	--	--	5	3	--	--	--	--	10
Common Snipe	1	--	--	1	--	--	3	--	--	10	13	--	7	--	--	50
Spotted Sandpiper	--	11	--	16	23	1	1	--	--	8	6	--	--	2	4	17
Solitary Sandpiper	3	1	1	7	5	3	1	--	1	18	13	--	4	7	--	27
Willet	--	--	--	--	11	--	--	--	--	--	--	--	--	--	--	--
Greater Yellowlegs	2	--	--	--	--	--	3	--	--	--	--	--	8	--	--	9
Lesser Yellowlegs	4	8	--	108	--	--	--	2	--	--	2	--	1	--	--	9
Pectoral Sandpiper	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--	--
White-rp. Sandpiper	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Least Sandpiper	--	23	--	101	--	--	--	--	--	15	3	--	--	4	--	3
Dowitcher sp.	--	--	--	3	5	--	1	--	--	--	--	--	--	--	--	--
Stilt Sandpiper	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--
Semipal. Sandpiper	--	--	--	15	--	--	--	--	--	--	--	--	--	--	--	--
Western Sandpiper	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Wilson's Phalarope	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Herring Gull	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Ring-billed Gull	--	--	--	--	46	--	--	--	--	--	--	--	--	--	--	--
Bonaparte's Gull	--	--	--	--	2	--	--	--	--	5	--	--	--	--	--	--
Forster's Tern	3	--	--	3	--	--	--	--	--	6	--	--	--	--	--	--
Common Tern	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Caspian Tern	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--

	Mem	Reel	Law	Colu	Nash	Murf	Leb	Tull	Cook	Chat	Knox	Smok	Green	King	Bri	Eli
Black Tern	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--
Rock Dove	1	1	11	38	40	2	4	5	15	106	73	--	20	--	22	25
Mourning Dove	20	64	44	53	113	25	49	7	94	44	297	--	54	63	70	77
Yellow-billed Cuckoo	2	5	3	7	8	1	3	--	2	--	1	--	1	--	2	1
Black-billed Cuckoo	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--
Barn Owl	--	--	--	--	--	--	1	--	--	1	1	--	2	--	--	1
Screech Owl	--	--	2	1	3	--	2	--	2	2	3	--	--	1	1	12
Great Horned Owl	--	--	--	2	1	--	1	--	2	--	--	--	--	--	--	2
Barred Owl	2	4	4	3	6	--	2	--	--	3	3	1	--	--	--	4
Saw-whet Owl	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	--
Chuck-will's-Widow	1	--	9	3	--	4	18	1	--	4	27	--	3	2	--	1
Whip-poor-will	--	--	12	1	17	6	8	--	1	9	1	--	1	--	--	8
Common Nighthawk	--	14	8	10	3	15	5	--	--	5	11	--	--	11	1	7
Chimney Swift	10	24	37	125	256	105	53	68	29	81	301	8	72	65	85	199
Ruby-th. Hummingbird	20	21	1	5	19	8	7	1	11	9	14	--	3	1	7	8
Belted Kingfisher	--	--	4	19	12	6	11	--	3	5	17	2	6	9	8	20
Common Flicker	2	3	8	11	22	25	10	2	19	17	79	1	17	22	26	53
Pileated Woodpecker	8	8	14	16	32	3	2	1	1	9	20	1	8	11	2	29
Red-bel. Woodpecker	18	23	15	27	80	12	24	3	17	21	48	--	6	12	2	14
Red-hd. Woodpecker	16	5	1	8	2	--	1	--	2	6	2	--	2	1	1	--
Yellow-bel. Sapsucker	--	--	--	--	5	1	--	--	3	3	5	1	2	--	--	4
Hairy Woodpecker	--	1	2	7	9	1	3	1	--	3	5	1	--	2	1	5
Downy Woodpecker	8	10	4	21	59	8	11	1	33	11	33	1	14	8	11	41
Eastern Kingbird	24	14	14	67	20	26	30	9	4	11	15	--	2	10	2	13
Great Cr. Flycatcher	25	26	11	34	23	5	13	4	--	13	16	--	4	17	8	7
Eastern Phoebe	--	8	5	27	24	6	9	--	3	12	23	6	17	15	16	46
Acadian Flycatcher	21	14	8	24	13	1	1	--	--	6	4	--	1	7	--	2
Alder Flycatcher	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
Least Flycatcher	--	2	--	--	1	--	--	--	--	--	--	--	--	--	--	9
Eastern Wood Pewee	13	37	5	36	20	2	1	1	--	6	4	--	5	10	7	1
Horned Lark	8	15	--	5	--	--	--	--	--	--	11	--	--	--	8	2
Tree Swallow	8	10	--	11	--	--	5	--	4	--	2	--	7	--	3	11
Bank Swallow	--	16	--	4	--	--	--	3	--	--	2	--	2	--	17	--
Rough-winged Swallow	--	2	--	57	12	--	4	12	2	29	36	4	--	8	--	78
Barn Swallow	30	84	55	206	132	--	62	23	55	65	197	--	74	21	53	161
Cliff Swallow	--	--	--	2	10	--	1	17	--	120	3	--	--	--	2	--
Purple Martin	14	31	3	49	55	130	5	49	14	48	126	--	7	48	6	54
Blue Jay	22	33	41	106	334	123	110	35	104	71	319	10	115	74	152	157
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Common Crow	7	42	29	40	94	42	54	7	62	43	155	8	49	75	64	92
Fish Crow	6	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Black-cap. Chickadee	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--
Carolina Chickadee	25	41	12	79	123	27	51	1	26	47	160	5	52	40	57	91
Tufted Titmouse	78	29	28	134	165	20	45	8	52	45	158	2	32	55	38	99
Wht.-br. Nuthatch	1	--	--	10	9	--	1	--	5	8	12	--	--	1	4	13
Red-br. Nuthatch	--	--	--	--	--	--	--	--	--	--	8	1	--	--	2	31
Brown Creeper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
House Wren	1	--	--	--	6	2	--	--	4	1	26	--	8	30	9	21
Winter Wren	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	17
Bewick's Wren	--	--	2	4	6	4	2	--	--	1	--	--	--	--	--	--
Carolina Wren	71	61	35	82	116	19	10	8	15	55	206	3	53	54	19	81
Long-b. Marsh Wren	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Short-b. Marsh Wren	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Mockingbird	22	9	30	62	175	68	62	16	25	34	242	--	58	39	38	78
Gray Catbird	12	3	4	41	60	30	17	2	2	17	55	--	6	30	46	37
Brown Thrasher	12	3	26	61	89	40	26	13	41	22	96	2	34	33	29	81
American Robin	24	12	18	74	369	111	58	13	80	34	426	--	89	126	280	310
Wood Thrush	34	20	12	64	71	1	19	1	13	26	132	3	8	58	42	142
Hermit Thrush	--	--	--	--	2	--	--	--	1	1	1	--	4	--	--	--
Swainson's Thrush	16	2	8	20	17	--	--	--	--	3	47	--	--	18	--	3
Gray-chk. Thrush	4	2	--	7	--	--	2	--	--	1	1	--	--	--	1	--
Veery	3	--	1	8	1	--	--	--	--	1	2	--	1	3	--	3
Eastern Bluebird	5	11	27	52	101	20	36	3	17	24	33	--	10	25	1	28
Blue-gr. Gnatcatcher	103	38	11	140	119	2	15	--	7	49	86	9	17	13	2	55
Golden-cr. Kinglet	--	--	--	--	--	--	--	--	2	--	--	--	--	2	--	3
Ruby-cr. Kinglet	1	--	1	1	17	5	9	--	2	8	105	1	10	2	5	32
Water Pipit	--	--	--	--	--	--	--	--	--	--	11	--	--	--	--	--
Cedar Waxwing	22	31	4	8	57	62	75	--	2	20	99	--	50	13	1	187
Loggerhead Shrike	6	8	9	19	29	6	12	1	2	2	2	--	1	--	1	--
Starling	71	196	65	147	875	152	53	45	250	236	1189	--	450	174	524	679
Wht.-eyed Vireo	51	23	19	97	139	4	12	--	10	42	108	2	1	18	3	57
Yellow-thr. Vireo	10	4	1	43	9	--	2	--	3	18	13	1	1	1	4	8
Solitary Vireo	--	1	--	1	5	1	4	--	--	1	7	--	--	--	--	43
Red-eyed Vireo	49	19	22	80	68	9	1	1	1	42	162	4	5	55	32	11
Philadelphia Vireo	--	--	--	2	3	--	1	--	--	--	--	--	1	--	--	--

	Mem	Reel	Law	Colu	Nash	Murf	Leb	Tull	Cook	Chat	Knox	Smok	Green	King	Bri	Eli
Warbling Vireo	12	8	--	1	4	--	2	--	--	--	1	--	--	1	--	11
Black-&-wh. Warbler	5	1	3	18	4	3	3	1	--	11	44	3	--	9	15	69
Prothonotary Warbler	39	22	3	10	31	4	4	1	1	6	3	--	2	3	--	--
Swainson's Warbler	6	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Worm-eating Warbler	3	--	5	18	10	2	4	--	--	5	20	--	--	4	5	19
Golden-wgd. Warbler	--	--	--	3	7	--	--	--	--	1	8	--	--	6	--	5
Blue-wgd. Warbler	1	--	8	53	44	4	1	--	--	4	14	--	--	1	2	1
Tennessee Warbler	77	63	27	126	42	8	4	--	3	4	23	--	--	21	4	--
Nashville Warbler	2	1	--	5	21	1	1	--	--	3	22	--	--	--	1	1
Northern Parula	34	21	5	33	14	--	--	--	--	9	10	8	--	--	11	76
Yellow Warbler	--	3	1	35	34	16	11	--	--	38	48	5	6	26	3	80
Magnolia Warbler	--	2	1	2	3	1	3	--	--	1	1	--	--	6	6	--
Cape May Warbler	1	--	5	11	--	4	2	--	--	10	32	--	--	15	6	2
Bl.-th. Blue Warbler	--	--	--	--	--	--	--	--	--	1	3	2	--	--	1	20
Yellow-rumped Warbler	21	5	4	65	99	43	35	3	30	42	346	--	38	33	12	78
Bl.-th. Gre. Warbler	1	1	3	7	4	3	--	--	2	13	37	11	1	3	7	48
Cerulean Warbler	35	6	2	16	13	1	3	--	--	17	39	--	--	3	--	4
Blackburnian Warbler	--	1	1	1	1	1	--	--	--	2	10	--	1	5	2	2
Yellow-thr. Warbler	6	3	4	19	6	4	1	--	1	29	6	5	--	--	--	5
Chestnut-sd. Warbler	--	1	--	5	2	--	4	--	--	3	9	--	--	5	3	38
Bay-br. Warbler	--	4	--	4	1	--	--	--	--	--	1	--	--	11	--	--
Blackpoll Warbler	3	45	1	11	--	1	4	--	--	4	1	--	--	11	1	--
Pine Warbler	--	--	--	--	--	4	3	1	2	13	10	1	--	1	2	4
Prairie Warbler	--	--	20	75	31	3	31	--	4	24	32	--	8	11	8	7
Palm Warbler	4	1	4	50	12	6	16	2	--	8	30	--	1	--	--	8
Ovenbird	4	5	3	33	4	--	2	--	3	13	25	14	1	24	9	74
Northern Waterthrush	3	--	--	4	6	--	3	--	--	10	3	--	--	--	--	2
La. Waterthrush	6	2	5	44	17	1	1	--	1	5	1	11	1	2	2	28
Kentucky Warbler	31	10	6	57	26	3	4	--	2	15	14	2	--	20	--	3
Common Yellowthroat	29	40	25	113	86	5	23	4	3	34	69	--	18	30	16	47
Yellow-br. Chat	21	25	27	74	92	--	14	--	1	22	44	--	10	18	7	18
Hooded Warbler	12	2	2	26	5	2	--	--	1	20	30	6	--	6	4	43
Wilson's Warbler	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--
Canada Warbler	1	--	--	--	1	--	--	--	--	2	--	--	1	--	1	--
American Redstart	36	--	1	8	5	--	--	--	--	30	6	1	--	7	2	7
House Sparrow	40	210	25	140	63	229	113	15	26	66	89	--	78	30	42	103
Bobolink	2	6	1	22	--	--	2	--	--	6	30	--	--	10	--	--
Eastern Meadowlark	23	57	71	112	313	103	304	75	133	47	301	1	84	61	78	136
Yellow-hd. Blackbird	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Red-winged Blackbird	115	380	85	220	237	69	80	60	43	47	521	1	47	48	51	684
Orchard Oriole	21	17	31	76	96	35	39	1	2	11	25	--	6	2	6	27
Northern Oriole	22	51	--	15	52	5	3	2	--	5	27	1	1	11	16	14
Rusty Blackbird	--	--	--	--	1	--	1	--	--	13	--	--	--	--	--	14
Common Grackle	162	410	49	445	1210	304	296	100	1700	95	376	--	247	142	388	678
Brown-hd. Cowbird	285	152	46	168	162	49	98	14	165	56	183	1	12	38	10	83
Scarlet Tanger	9	4	11	50	14	5	13	--	2	17	62	2	2	27	14	22
Summer Tanger	55	13	23	76	67	5	34	--	3	18	28	--	8	9	1	4
Cardinal	81	73	87	173	401	112	117	15	143	43	410	3	103	125	117	213
Rose-br. Grosbeak	15	12	6	44	70	15	2	--	4	13	55	2	1	16	8	18
Blue Grosbeak	2	--	10	8	16	3	2	--	--	3	12	--	2	1	--	3
Indigo Bunting	161	160	108	240	262	62	51	3	11	47	91	2	16	67	55	35
Painted Bunting	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dickcissel	25	193	6	30	--	1	--	--	--	--	--	--	--	--	--	--
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	--	--	13	--	1	79
Purple Finch	1	--	--	--	7	24	1	--	68	--	17	--	--	3	1	49
Pine Siskin	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	16
American Goldfinch	32	9	49	108	780	81	48	19	80	88	294	8	17	56	34	225
Rufous-sided Towhee	13	3	40	105	139	55	52	16	36	18	187	2	40	53	48	142
Savannah Sparrow	3	2	1	8	4	6	--	--	7	3	49	--	17	1	--	15
Grasshopper Sparrow	--	--	4	4	1	--	1	--	--	10	3	--	1	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Lark Sparrow	--	--	1	--	--	--	6	--	--	--	--	--	--	--	--	--
Dark-eyed Junco	--	--	--	--	4	21	--	--	8	1	2	3	3	--	--	61
Chipping Sparrow	6	2	5	24	71	48	13	--	35	30	61	9	11	1	4	107
Field Sparrow	3	21	31	100	138	63	59	15	84	19	91	2	48	32	29	63
Wht.-cr. Sparrow	28	2	8	32	7	18	62	--	2	3	20	--	10	1	8	22
Wht.-thr. Sparrow	61	5	16	53	201	65	47	6	64	70	482	4	155	16	24	176
Fox Sparrow	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	2
Lincoln's Sparrow	3	1	3	2	4	--	--	--	--	--	--	--	--	--	--	--
Swamp Sparrow	3	--	1	4	16	--	2	--	--	9	6	--	--	--	--	19
Song Sparrow	--	2	--	--	16	4	14	1	12	36	234	--	43	77	63	236
Species, Total	121	126	105	153	146	104	127	66	88	147	142	56	105	111	102	151
Species, Grand Total	216															

LEBANON: 26-27 April—Wilson County.

TULLAHOMA: 27 April—clear, 60 to 84° F. Included Woods Reservoir and Duncan Lake. Carroll Barr, Stanley Barr (compiler—Rt. 2, Box 375A-1, Estill Springs 37330), Marjory Harper.

COOKEVILLE: 19 April—wet, cloudy to clear, 50 to 70° F. Beulah Clark, Dr. and Mrs. J. O. Cummins, Ernest Holthaven, Mr. and Mrs. Frazier Jaques, William J. Jones, Ray Jordan, Amy Johnson, Mr. and Mrs. T. B. Link, Dr. and Mrs. Sidney L. McGee, M. R. Richmond (compiler—519 N. Jerrerson, Cookeville 38501), Timmy Smith, Roy H. Sullivan, F. R. Toline, Thelma Tinnon.

CHATTANOOGA: 26-27 April—Hamilton and surrounding counties. Mr. and Mrs. Lloyd Anderson, Gary Baines, Chris Baines, Benton Basham, Branson Block, Todd Bowen, Jon and Nancy DeVore, Ken and Lil Dubke, Chris Haney, Frank and Gloria Hixon, Daniel Jacobson (compiler—P. O. Box 6, Wildwood, Georgia 30757), Lemuel Jacobson, Ival Lawhon, Lee Shafer Family, Veta Sliger).

KNOXVILLE: 27 April—Knox County, partly cloudy, 50-82° F. Fae Andrews, James M. Campbell, Howard Chitwood, John Elson, Elizabeth Elson, James Holt, J. C. Howell, Susan Hoyle, Tony Koella, Beth Lacy, Bill McNutt, Charles P. Nicholson, Ann Olson, Bill Olson, Holly Overton, J. B. Owen (compiler—2930 North Hills Blvd., Knoxville 37917), Diane Rook, Paul Rook, Polly Ryder, Boyd Sharp, Johneta and Louis Smith, James T. Tanner, Nancy Tanner, Bill and Irene Williams, Morris D. Williams.

GREAT SMOKY MOUNTAINS NATIONAL PARK: 26-27 April. From the field notes of James M. Campbell and Morris D. Williams.

GREENEVILLE: 29 April—clear, cool, 60° F. 13 observers. Richard Nevius, compiler, Rt. 6, Greeneville 37743.

KINGSPORT: 10 May—overcast, 65° F, wind 0-5 mph. Roy and Hattie Allen, Fred Alsop, Marcia Davis, Barney, Charlotte, Marion, and Tom Finucane (compiler—1434 Watauga Street, Kingsport 37664), Frank and Betsy Oglesby, Debbie Paterson, John T. Pierce and John, Jr., George Rodgers, Arthur Smith, Lucille Smith, Ann Switzer.

BRISTOL: 3 May—partly cloudy with rain in the afternoon, 56-63° F. 17 observers. Diane Wilson, compiler, 205 Robin Road, Bristol 37620.

ELIZABETHTON: 26 April—Carter and adjoining Counties. Clear, early morning fog, 45-78° F. Fred Behrend, Virginia Curtis, Martha Dillenbeck, Helenhill Dove, Glen Eller (compiler—Rt. 3, Grandview Terrace, Elizabethton 37643), Harry Farthing, Sally Goodin, Lee and Lois Herndon, Barney Keffer, Danny Leach, Richard Lewis, Dick Lura, John and Carolyn Martin, Pete Range, Jake Slonaker, Alan Smith, Elanore Smith, Tommy and Maxie Swindell, Gary Wallace.

ROUND TABLE NOTES

MERLIN AT NASHVILLE—At approximately 16:00 on the afternoon of 4 April 1975 I was in the old Buena Vista Marsh area, alongside the Cumberland River, which is presently undergoing construction for the MetroCenter development. At that time, you could drive down Tenth Avenue about one-half mile to a turn-around. I had done this and was on my way back out of the area when I noticed a hawk perched in a small cottonwood tree (*Populus deltoides*) along the shore of a small lake to my left, the east side of the road, about fifty yards away. I stopped the car and with an unobstructed view of the bird with 7 x 50 binoculars noted that it was a small hawk with black bars on a long, rounded tail. (I have since read that the tail is actually black with light bars, but, at the time, the black was predominant to me so it seemed that the tail had black bars.) The bird was facing me in good sunlight and I could see the white throat with brown stripes on the white breast close together and more noticeable on the upper breast. The bird did not flush when I opened the car door and I was able to walk about half the distance to it before it hopped up about a foot and perched with its back toward me. It was all brown with bars on top of the tail also. As I walked closer, the bird flew to my left and around behind me, crossing the road. It flew very low, four to five feet over the land and water, on crooked, pointed wings, steadily flapping. It showed uniformly brown on both back and wings. It stopped about ten feet on the west side of the road. Both times when perched, the bird sat close to the trunk of a small tree about halfway between the crown and the ground.

I turned the car around and drove toward the bird, and it again flushed and flew very low over a small rise. I followed on foot a short distance until stopped by a canal, but did not see the bird again. Another trip to the area the next afternoon also failed to produce sight of the bird.

Before following the bird on foot, I consulted a copy of *Birds of North America* by Robbins, et al, and confirmed my suspicion that the bird I had seen was a Merlin (*Falco columbarius*). The brown plumage indicated that it was a female or immature bird. I had just seen a Red-tailed Hawk (*Buteo jamaicensis*) and a Kestrel (*Falco sparverius*) in the same area and noticed that this bird was between the sizes of the other two hawks.

The last Merlin previously reported to the Nashville Chapter's Records Committee was in November 1970.

PAT STALLINGS, 406 North 17 Street, Nashville 37206.

AVOCETS IN FRANKLIN COUNTY—On 19 August 1974 at mid-afternoon while boating on Tims Ford Reservoir, Mr. Charles Cheston, Jean Yeatman, Clay Yeatman, Jean H. Yeatman, and I observed a flock of nine Avocets (*Recurvirostra americana*) resting on a grassy sand bar surrounded by water. I had become familiar with Avocets on the Bear River Marshes, Utah in the summer of 1931. The Avocets' large size, upturned bills, long blue-gray legs and white body with black feathers of the wings bordering a distinct white stripe made identification easy. We circled the bar with the boat and viewed the birds at a distance of 30 feet in bright sunlight. Most of the birds were in fall plumage, with dull white heads and necks, but three showed some rusty color on the head and neck. A Forster's Tern (*Sterna fosteri*) and four Black Terns (*Chlidonias niger*), all in fall plumage, were standing near the Avocets. Finally the Avocets became disturbed and took wing, flying in low circles with necks and legs extended, before realighting on the bar, when we departed.

Avocets are considered rare migrants east of the Mississippi River. For Tennessee, there are twelve fall records and two spring records, previous to this report.

Harry C. Yeatman, Biology Department, The University of the South, Sewanee 37375.

BAIRD'S SANDPIPER AT GALLATIN STEAM PLANT—On 13 August 1971, in order to prepare for the next meeting of the Lebanon Chapter at the Gallatin Steam Plant, Mr. Bill Sellars and I went to the steam plant to finalize arrangements for the chapter visit and to pre-view the habitat. At 15:00 in the curve of the largest ash-settling pond we observed with 7 x 25 Jason Venture binoculars and 7 x 35 Bausche and Lomb binoculare a small shorebird in the company of three Killdeer (*Charadrius vociferus*) we had previously flushed about 100 yards down the shore. Being uncertain as to which "peep" was in our sight, we used a 15x-60x Swift Telemaster spotting scope on a tripod and kept the bird under continual observation for over 20 minutes until we were sure of our identification. The bird was initially about 30 feet away from us and by the time we concluded our observation it had moved approximately 100 feet away. It was observed both feeding and resting. It was smaller than the Killdeers but was slightly larger than a Semipalmated Sandpiper (*Calidris pusillus*) we had observed earlier. It had a rather pronounced eye-stripe and brownish upper breast. The back and head were also definitely brownish. It had a clearly defined white throat and belly and dark legs. The following field guides, Peterson, Collins, Robbins and Chapman were consulted extensively as we reached our conclusion that the bird was a Baird's Sandpiper (*Calidris bairdii*).

All field guides consulted commented on the "sealy" back of the Baird's Sandpiper and similarly all the pictures showed all the other sandpipers as having greyer or darker backs. We felt that the brown back of this bird with its irregular pattern met the qualifications of a Baird's Sandpiper. We also noted that the folded wings extended beyond the tail. We felt the bird was not a Least Sandpiper (*Calidris minutilla*) because its breast was too distinct, its back was too brown and the legs too dark (the Least Sandpiper has yellow or greenish legs). It was not a Western Sandpiper (*Calidris mauri*) because of the breast markings, the brown head and back and the bill did not droop at the tip. It was not a White-rumped Sandpiper (*Calidris fuscicollis*) because it lacked the white rump. It was not a Semipalmated Sandpiper because the face pattern and breast markings were too pronounced and too brown and the back was too brown and patterned. The only other bird it could have been would have been a Pectoral Sandpiper (*Calidris melanotos*) which is almost the size of a Killdeer and has greenish legs. The bird we observed was smaller and had dark legs.

As we concluded our observation, we flushed the bird to check its wing pattern and rump. The rump and tail pattern was dark bordered in white. The wings were brown with a white wing line, visible though not a wing stripe.

Based on all our observations and our references we feel certain of the identification of the Baird's Sandpiper. Henry Parmer in *Birds of the Nashville Area* describes the Baird Sandpiper as a migrant and transient visitor and show three records prior to 1971. However, a Baird's Sandpiper was reported in the Nashville Area on 28 July, 1971.

Before leaving Gallatin we called Paul Crawford to inform him of the Baird's Sandpiper. He did not find the bird the next day but approximately one week later he also observed a Baird's Sandpiper at the Gallatin Steam Plant.

REV. WILLIAM SENTER, 827 Castle Heights Ext., Lebanon 37087.

MIGRATION OF NIGHTHAWKS IN CUMBERLAND COUNTY—Many of us have had the experience of observing the Fall migration of Common Nighthawks (*Chordeiles minor*) in moderate numbers of 100-200, with most of them seen in late afternoon. We have recorded most observations at our home in the country for three seasons, but the quantity in August and September 1974 and the times of day were so unusual as to seem worth publicizing. Ordinarily, nighthawks are not seen here to any great extent from the time of their arrival until August.

In 1972 only two groups of more than 100 were seen: 149 on 30 August and approximately 500 on 6 September. On the latter date there was a large hatch of insects.

In 1973 we recorded no large groups but it was reported by neighbors that many passed over during the weekend of 7 through 9 September while we were out of town.

In 1974, activity started on 19 August with two birds, followed by 145 on 21 August. The following listing gives an idea of their movements over our house between 19 August and 29 September. In some cases, the area covered by nighthawks was beyond our view and their density was such that we were unable to make even a reasonable estimate.

19 Aug. (2); 21 Aug. (145); 22 Aug. (2000) estimated; 23 Aug. (2); 24 Aug. (3); 25 Aug. (50); 26 Aug. (50); 27 Aug. (a few); 28 Aug. 05:45 CDT (a few), dark and cloudy with wind out of S at 8-10 mph. 10:00 (35) moving W. 12:30 (500) estimated, moving E to W, probably to miss rainstorm over Crossville, not feeding. 12:45 (500) estimated, moving SW, high, appeared to be circling in thermals. 13:15 (200), low over field S of house, feeding. 13:25 (300), moving NW to SW. 15:00 (1), rain. 15:10 (50),

low, rain stopped and sun appeared. 16:05 (75). 16:15 (45), circling and moving N. 16:35 (25). 16:45 (100), high, moving NE, large thunderstorm to the S. 16:55 (26), high, moving NE, rain. 17:05 (40), low, moving S. 17:15 (40), low, moving S. 17:25 (6), low, moving S. 17:35 (15), low, moving S. 17:45 (28), low, moving S. 18:00 (41), low, moving SE. 29 Aug. (15), feeding. 30 Aug. (10), feeding. 31 Aug. (12), feeding. 1 Sept. (50). 2-4 Sept. (3-4), each evening. 8 Sept. (3). 10 Sept. (200). 12 Sept. (1). 15 Sept. (2). 17 Sept. (1). 18 Sept. (24). 19 Sept. (14), moving N, feeding. 20 Sept. (10), feeding. 28 Sept. (4). 29 Sept. (1).

The estimated total of nighthawks on 28 August is 2,622. Observation of 2,000 or more nighthawks in one group or even in one day seems to be rare. The only reference I could find to that large a number is of an occurrence in the Spring and in the Gulf area.

Mrs. E. M. West, Rt. 10, Box 343, Crossville 38555.

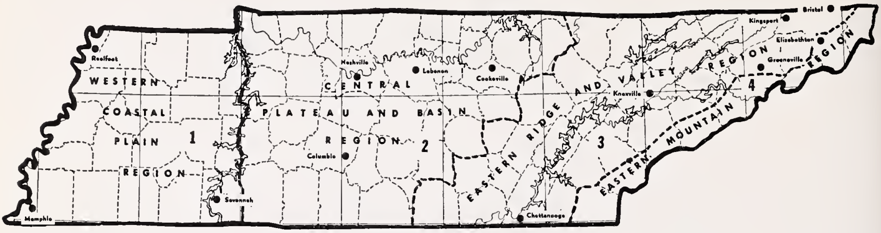
MIGRATING COMMON NIGHTHAWKS IN WEST TENNESSEE—On 31 August, 1974, I observed a large flock of migrating Common Nighthawks (*Chordeiles minor*) about 8 kilometers northeast of LaGrange, Fayette County, Tennessee. The birds were first observed at about 6:04 PM, CDT, and watched for about 25 minutes. During the time of observation, the temperature was approximately 27° C, the sky was clear, and there was no wind. The birds flew in a south-southeasterly direction, over a forest and then crossing a large bottom. As the birds passed over the bottom, which was planted in silage crops, some swooped down to as low as 3-4 meters above the field, while others remained as high as 200 meters. The nighthawks passed by in a broad, undulating stream at a rate of about 100 per minute, although occasionally they flew over faster than I could count them. During the period I observed them, as estimated 2500 nighthawks flew over. At the time I left the area, the birds were still passing over.

The following day, 1 September, a smaller, more scattered flock of Common Nighthawks was seen approximately 1.6 kilometers north of where the flock was seen the previous day. This flock, watched from about 7:15 to 7:45 PM, contained about 1000 nighthawks and about 50 Chimney Swifts (*Chaetura pelagica*).

Charles P. Nicholson, University of Maine, School of Forest Resources, Orono, Me. 04473.

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
Memphis
Savannah
WESTERN COASTAL PLAIN REGION
1
Nashville
Lebanon
Cookeville
Columbia
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
Knoxville
Chattanooga
3
Bristol
Kingsport
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

SPRING MIGRATION: 16 MARCH - 15 MAY

For the first time in several seasons this Spring Migration report is characterized by exciting unexpected birds being observed in all regions of the State. Many Tennessee birders were in the field and many saw such unusual birds as Long-eared Owls near Greeneville and in Bristol; Double-crested Cormorants near Elizabethton; a Scissor-tailed Flycatcher and Western Meadowlarks in the Western Coastal Plain; and a House Finch in the Nashville Area, the wintering Black-headed Grosbeak, and a Common Gallinule in the Central Plateau and Basin just to note a few.

There is much useful information in the many nesting species reported and in the many birds which were banded during this period. The reader is directed especially to the Central Plateau and Basin and the Eastern Ridge and Valley Regions for this information. The numbers of nesting raptorial species is of particular significance. Barn Owls nested in the Eastern Mountain Region and Black Vultures and American Woodcock nested in the Eastern Ridge and Valley Region where a colony of nesting Black-crowned Night Herons was located near Knoxville.

In addition to the nesting birds of prey several Sharp-shinned and Cooper's Hawks were found in the two central regions, and a Rough-legged Hawk, a Peregrine Falcon, and a Merlin were reported from the Central Plateau and Basin.

Surf Scoters, an American Golden Plover, and some of the few records of Evening Grosbeaks and Pine Siskins were reported in the Eastern Ridge and Valley; Evening Grosbeaks and Pine Siskins were also found in the Eastern Mountain Region. Cattle Egrets and a Swainson's Warbler were seen in the Central Plateau and Basin. The Western Coastal Plain had a Philadelphia Vireo, a Lark Sparrow, and a new location for Painted Bunting.

In addition to these many unusual sightings there are records of individuals which arrived earlier than previously recorded locally and of those who lingered later. It is a most interesting Season and we thank you all for your records and continue to encourage you to send your observations to your regional compiler.

The Winter Season report of the Central Plateau and Basin which did not appear in the last issue of *The Migrant* is included at the end of this edition of "The Season."

WESTERN COASTAL REGION—Many species were exceptionally early. Some were early by five days while others were as early as sixteen days. The earlier species included the Eastern Kingbird; Acadian Flycatcher; Wood Thrush; Warbling Vireo; Tennessee Warbler; Palm Warbler; Common Yellowthroat; and the Rose-breasted Grosbeak. Some species were more common than usual, such as the Blue-winged Warbler and the Canada Warbler. Readers are directed to a previous article, "Yellow-headed Blackbirds in Memphis" (*The Migrant,* 46:15) regarding the first record of this bird in Tennessee.

Horned Grebe-Wren: Horned Grebe: 5 and 12 Apr. (2) Darwin ponds (BBC), 6 Apr. (2) H (JL). These were new localities and the second for Memphis and the Shelby Co. area. Pied-billed Grebe: 28 Mar. (95) US 70 and Forked Deer, West of Jackson (JL). Yellow-crowned Night Heron: 24 Mar. (2) mid M (BBC). Broad-winged Hawk: 23 Mar. (1) SFSP (LC, BBC). Bald Eagle: 6 May (1 imm.) near Fulton, Lauderdale Co. (BBC). Virginia Rail: 26 Apr. (1) east M, caught by cat, later released, 27 Apr. (1) Darwin ponds (LC, BBC, JL). Semipalmated Plover: 1 May (2) Hales Point, Hwy. 88, Lauderdale Co. (JL). Pectoral Sandpiper: 3 Mar. (2) PF (HD, HSD, MW). Bonaparte's Gull: 29 Mar. (1) US 70, W of Jackson and Forked Deer River (JL). Black-billed Cuckoo: 23 Apr. (1) N. of Porter Gap, Lauderdale Co. (BBC, LC). Whip-poor-will: 22 Mar. (1) OP (BBC). Chimney Swift: 22 Mar. (1) J (JL). Eastern Kingbird: 1 Apr. (1) PF (LC, BBC), 17 Apr. (1) Darwin Ponds (LC, BBC, AS), 13 Apr. (1) Pickwick Dam (MFM), 15 Apr. (1) north end of Lauderdale Co., (1) south end of Lauderdale Co. (BBC, LC). *SCISSOR-TAILED FLYCATCHER:* 8 Apr. (1) SFSP (RM). Acadian Flycatcher: 19 Apr. (1) OP (BBC). Least Flycatcher: 24 Apr. (1) M (LC), 5-10 May, M (BBC, LC). Red-breasted Nuthatch: 24 Sept. - 3 May (1) R (EC). Barn Swallow: 23 Mar. (6) SFSP (LC, BBC). House Wren: 25 Apr. (1) M (LC), 27 Apr. (1) SFSP (LJ), 6 Apr. (1) CSP (BBC). Long-billed Marsh Wren: 7 May (1) H (JL).

Thrush-Sparrow: Wood Thrush: 3 Apr. (1) M (BBC, LC), 8 Apr. (1) OP (BBC). Swainson's Thrush: 12 Apr. (1) M (BBC). Blue-gray Gnatcatcher: 23 Mar. (4) SFSP (BBC, LC), 23 Mar. (1) C (AS). Solitary Vireo: 10 May (1) west of Fort Pillow Prison, Lauderdale Co. (LC). *PHILADELPHIA VIREO:* 10 May (1) Fort Pillow SP (LC), 6 May (1) M (LC), 7 and 10 May, OP (BBC). Warbling Vireo: 1 Apr. (2) FSP (RM), 13 Apr. (1) SFSP (LC, BBC). Prothonotary Warbler: 29 Mar. (1) WNWR (RW, HS), 6 Apr. (2) H (JL), 6 Apr. (1) Hatchie River and Hwy. 100 (LC, BBC). Swainson's Warbler: 18 Apr. (1) OP (BBC). Worm-eating Warbler: 10 Apr. (1) OP (OI). Blue-winged Warbler: more common than usual, OP, from 7 Apr. (BBC). Tennessee Warbler: 4 Apr. (1) M (BBC), 15 Apr. (1) OP (HD). Northern Parula: 23 Mar. (1) SFSP (BBC). Cape May Warbler: 27 Apr. (1) SFSP (BBC, FM, RW). Yellow-throated Warbler: 22 Mar. (1) FSP (LC, JW, AS). Prairie Warbler: 25 Apr. (1) M (LC), only record this season in Mississippi River counties. Palm Warbler: 1 Apr. (2) PF (BBC, LC), 21 Apr. (1) OP (OI). Northern Waterthrush: 24 Apr. (1) OP (BBC). Louisiana Waterthrush: 17 Mar. (1) M (BBC), earliest ever by two days. Kentucky Warbler: 7 Apr. (1) OP (BBC). Common Yellowthroat: 19 Mar. (1) East M (HD), 17 Apr. (1) RP and Darwin Ponds (BBC, LC, AS). Canada Warbler: 22 Apr. (1) OP (BBC). *WESTERN MEADOWLARK:* 23 and 26 Mar. (2)

Northwest M (BBC, LC), only area record in several seasons. Bobolink: 23 Apr. (11) South of Gates, TN (BBC, LC). Rose-breasted Grosbeak: 1 Apr. (4) FSP (RM), 18 Apr. (1) OP (BBC). Blue Grosbeak: 20 Apr. (pair) FPSP (ArS, NS). *PAINTED BUNTING:* 24 Apr. Covington, TN (AS), first county record. Dickcissel: 9 Apr. (1) Madison Co. (JL), 23 Apr. (18) South of Gates, TN (BBC, LC). Rufous-sided Towhee: 30 Apr. and 1 May (1) R (MEC). *LARK SPARROW:* 16 Apr. (1) H (JL).

Locations: CSP—Chickasaw State Park; C—Covington; FPSP—Fort Pillow State Park; FSP—Fuller State Park; H—Hatchie, Tennessee National Wildlife Refuge; J—Jackson, TN; M—Memphis; OP—Overton Park; PF—Penal Farm; R—Raleigh (northeast Shelby County); RP—Riverside Park, south Memphis; SE—Shelby County; SFSP—Shelby Forest State Park; WNWR—Wapanocca National Wildlife Refuge (extreme Western Arkansas).

Observers: MEC—Mrs. Ed Carpenter; BBC—Ben B. Coffey; LC—Lula Coffey; HD—Helen Dinkelspiel; HSD—Henry S. Dinkelspiel; OI—Oliver Irwin; JL—Jerald Ledbetter; FM—Frank McCamey; RM—Robert McGowan; MFM—Mary F. Mueller; HS—Harry Sayle; AS—Alice Smith; ArS—Arlo Smith; NS—Noreen Smith; MW—Martha Waldron; RW—Richard Whittington; JW—Jeff Wilson.

Martha Waldron, 1626 Yorkshire Drive, Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Grebe-Tern:* Pied-billed Grebe: 3 May (2 family groups) MP (TOS). White Pelican: 23 Apr. (1) CL (Rocky Milburn, Sr.). Green Heron: 1 Apr. (1) NA (David Vogt). Cattle Egret: 19 Apr. (2) NA (RJM); 23 Apr. - 26 Apr. (3) OHL (BF). Great Egret: 22 Mar. - 13 Apr. (8 reports). Snowy Egret: 23 Apr. (2) OHL (BF, SF). Black-crowned Night Heron: 5 Apr. (170) BV (MLB, MPS, MLM); 10 Apr. (225) OHL (BF, SF). Yellow-crowned Night Heron: 2 May (1) PP (BF). Least Bittern: 3 May (1) MP (TH). American Bittern: 29 Mar. (1) FP (MDW). Green-winged Teal: 14 Apr. (7) PP (BF, SF). Bufflehead: 2 May (1) OHL (BF, SF). Sharp-shinned Hawk: 22 Mar. (1) NA (TOS). Cooper's Hawk: 3 records NA; (16-30 Apr., 1 defending an old crow nest) B (RH). Red-tailed Hawk: 9 active nests FP (MDW). Red-shouldered Hawk: 8 active nests FP (MDW). *ROUGH-LEGGED HAWK:* 25 Mar. (1) PP (MPS). Osprey: 10 Apr. - 27 Apr. (13 reports). *PEREGRINE FALCON:* 10 May (1) RL (Richard Rimmer). *MERLIN:* 4 Apr. (1) BV (MPS). American Kestrel: 4 active nests FP (MDW). Sora: 19 Apr. (2) CL (RJM); 30 Apr. (4) MP (TH). *COMMON GALLINULE:* 29 Apr. (2) MP (TH). Semipalmated Plover: 10 May (97) GSP (DC, PC). Baird's Sandpiper: 10 May (1) GSP (DC, PC). Bonaparte's Gull: 2 May (2) OHL (BF, SF). Forster's Tern: 19 Apr. - 3 May (8 records).

Nighthawk-Finch: Common Nighthawk: 20 Mar. (1) NA (RJM). Chimney Swift: 24 Mar. (2) NA (Harry Monk). Least Flycatcher: 27 Apr. (1 banded) Two Jays (John and Heather Riggins). Eastern Wood Pewee: 17 Apr. (1) NA (Sue Bell). Brown Creeper: 21 Apr. (1) OHL (BF, SF). Long-billed Marsh Wren: 12 Apr. (1) CL (RJM). Ruby-crowned Kinglet: 11 May (3) RL (MLB). Yellow-throated Vireo: 30 Mar. (1) OHL (BF, SF). Prothonotary

Warbler: 2 Apr. (1) RL (MLB). *SWAINSON'S WARBLER*: 10 May - thru period (1) Shelby Bottoms, NA (MPS). Orange-crowned Warbler: 4 Apr. (1) NA (Ann Tarbell); 20 Apr. (1) OHL (BF, SF). Ovenbird: 11 May (Nest, 4 eggs) NA (KAG). Connecticut Warbler: 14 May (1) NA (MLB). Bobolink: 7-11 May (52) B (Dave Hassler, RH). *ROSE-BREASTED GROSBEAK:* The bird reported last season remained until 18 Apr. *BLACK-HEADED GROSBEAK:* The South Tunnel bird reported last season remained thru 21 Apr.; 15 Mar. (1) NA (Mrs. R. E. McClain); 26 Mar. (1 banded) NA (KAG). Blue Grosbeak: 12 Apr. (1) Ashland City (RJM). Evening Grosbeak: 14 Apr. (1) NA (Nelson Elam). *HOUSE FINCH:* 13 Apr. (1) NA (MPS).

Locations: B—Byrdstown; BV—Buena Vista; CL—Cheatham Lake; FP—Five Points; GSP—Gallatin Steam Plant; MP—Monsanto Pond; NA—Nashville Area; OHL—Old Hickory Lake; PP—Pat's Pond, NA; RL—Radnor Lake.

Observers: MLB—Michael Bierly; DC—Dot Crawford; PC—Paul Crawford; BF—Bill Fintel; SF—Sally Fintel; KAG—Katherine Goodpasture; RH—Robbie Hassler; TH—Thomas Hendrickson; MLM—Margaret Mann; RJM—Rocky Milburn; MPS—Pat Stallings; TOS—Members Tennessee Ornithological Society; MDW—Morris Williams.

MORRIS D. WILLIAMS, Dept. of Zoology, Univ. of Tenn., Knoxville 37916.

EASTERN RIDGE AND VALLEY REGION—The spring season appeared to be normal. Highlights of the season include a Common Gallinule at Jonesboro; Surf Scoters (details to be published) and a Golden Eagle at Chattanooga; and a Long-eared Owl at Greeneville. A banding station in Sequatchie Valley netted a Yellow-bellied Flycatcher. Barn Owls nested at Johnson City and American Woodcocks were reported nesting in three different parts of the region.

Loon-Merganser: Common Loon: 31 Mar. (1) ChL (KLD); 16 Apr. (1) BL (ES); 16 Apr. (6) NL (DRJ); Horned Grebe: last 16 Apr. (5) BL (ES); Green Heron: first 11 Apr. (2) AM (DRJ); Little Blue Heron: 18 Apr. (1) Da (LSF); 26 Apr. (1), 27 Apr. (3) Jonesboro (HD, JS); Cattle Egret: 19 Apr. (3) PSF (JGH); Great Egret: 4 Apr. (1) AM (Ival Lawhon); 2 May (1) ChL (DRJ); *BLACK-CROWNED NIGHT HERON:* 11 Apr. (1) AM (DRJ); 26 Apr. (2) KP (RL); *colony* on Ft. Loudon Lake at Concord (CPN, MDW); Yellow-crowned Night Heron: 5 May (nest, 6 eggs) CH (DRJ); Least Bittern: 10 May (1) AM (DRJ); American Bittern: 5 Apr. (1) AlM (JGH); 12 Apr. (1) SeV (LSF); 20 Apr. (1) AM (DRJ); 20-26 Apr. (2) AS (GE, HF); Mallard: 20 Apr. (3 nests) AM (DRJ); Gadwall: 15 Apr. (50) NL (KLD); Green-winged Teal: last 16 Apr. (2) BL (ES); Wood Duck: 22 Mar. (adult on nest) SeV (LSF); Redhead: 17 Mar. (80) BWP (KLD); Canvasback: 17 Mar. (5) BWP (KLD); Greater Scaup: 2 Apr. (15) SB (KLD); *SURF SCOTER:* 11 May (2) SB (KLD, AG, et al); Ruddy Duck: 18 Apr. (10) K (JGH, CPN); Red-breasted Merganser: 17 Mar. (120) ChL (KLD); 18 Apr. (10) K (CPN, JGH).

Vulture-Hawk: Turkey Vulture: 22 Mar. (migrating flock of 35) Hamblen Co. (FPA, GM, CPN, JBO); Black Vulture: (2 nests with 2 young, 1 nest with 1 young) Chatt. area (GLB, DRJ, Jay Clark); Sharp-shinned Hawk:

22 Mar. (1) JC (PR); 26 Mar. (1) CH (KD); 18 Apr. (1) K (JGH, CPN, MDW); 20 Apr. (1) JC (SG); 23 Apr. (1) K (FPA, CPN); 24 Apr. (1, banded) Da (BB); 27 Apr. (1) Cumberland Heights (DRJ); Cooper's Hawk: 20 Apr. (1) CC (JMC, BRH, JCH); 27 Apr. (1) Signal Mtn. (JBB, DRJ); Red-shouldered Hawk: 4 nests in Chatt. area (KLD, et al); *GOLDEN EAGLE:* 5 Apr. (1, adult) Point Park, CH (JBB); Marsh Hawk: last 4 Apr. (1) SB (LD); Osprey: 26 Mar. - 13 May (1-3 regular) ChL, SB (KLD); 5 Apr. - 27 Apr. (1) K (JGH, CPN, et al); 13 Apr. (1) AS (GE); 20 Apr. (1) CC (JMC, BRH, JCH); 3 May (1) SeV (DRJ).

Crane-Tern: Sandhill Crane: 17 Mar. (22) CB (Dick Russell fide KD); King Rail: 20 Apr. (nest, 8 eggs) AM (DRJ); Virginia Rail: 21 Apr. (1), 6 May (1) AS (DJL); 26 Apr. (2) KP (RL); Sora Rail: 17-26 Apr. (1-4) AS (ETOS); 20 Apr. (1), 10 May (1) AM (DRJ); *COMMON GALLINULE:* 26, 27 Apr. (1) Jonesboro (HD, JS); Semipalmated Plover: 27 Apr. (1), 3 May (1) SeV (DRJ); 11 May (8) CL (JMC, BRH, JCH); Killdeer: 28 Mar. (nest, 4 eggs) Jefferson Co. (FPA CPN); *AMERICAN GOLDEN PLOVER:* 10 Apr. (1) PSF (JGH); *AMERICAN WOODCOCK:* 25 Mar. (adult with 4 young) RCo (Tommy Smith); 10 May (adult with 3 young) RCo (CPN); 26 Apr. (adult with 3 young) CB (KD); through last of Apr. (2 adults with 4 young) AS (GE, HF, et al); 16 Apr. (last singing) AM (KLD); Common Snipe: 15 Apr. (25) AM (DRJ); Spotted Sandpiper: 15 Apr. (1) SB (KLD); Solitary Sandpiper: 16 Apr. (3) AM (KLD); *WILLET:* 29 Apr. (2) PSF (JGH, Carl Wirwa); Greater Yellowlegs: 25 Mar. (2) SB (KLD); 19 Apr. (8) SeV (DRJ); Lesser Yellowlegs: 21 Mar. (1) SB (KLD); 19 Apr. (5) SeV (DRJ); Pectoral Sandpiper: 23 Mar. (16) HRA (DRJ); 31 Mar. (8) Meigs Co. (KLD); Least Sandpiper: 3 May (20) SeV (BB, LSF, DRJ); Dunlin: last 9 Apr. (8) SB (KLD); *LONG-BILLED DOWITCHER:* 19 Apr. (2, by call note) SeV (LSF, DRJ, JBB); Semipalmated Sandpiper: 4 May (1) CL (JMC, BRH, JCH); Ring-billed Gull: 4 May (1) CL (JMC, BRH, JCH); Bonaparte's Gull: 16 Apr. (30) BL (ES); 25 Apr. (1) PSF (JGH); Forster's Tern: 19 Apr. (2) SB (LD).

Cuckoo-Wren: Black-billed Cuckoo: 10 May (1) AM (DRJ); Barn Owl: (1 active nest) JC (Barney Keefer, et al); 21 Mar. (2) AM (DRJ); Screech Owl: (2 nests, each with 3 young) K (CPN); 4 May (1, banded) Da (BB); 14 May (1, banded) DL (BB); *LONG-EARED OWL:* through 25 Mar. (1) Greeneville (Royal B. Spees); Chimney Swift: 30 Mar. (2) CH (AG); Red-headed Woodpecker: 14 Apr. (1) JC (PR); *YELLOW-BELLIED FLYCATCHER:* 6 May (1, banded) Da (BB); Eastern Wood Pewee: 1 Apr. (1) K (Mabel Sanders); Tree Swallow: first 16 Mar. (2) WW (DRJ); Bank Swallow: 19 Apr. (1) Erwin (RL); Rough-winged Swallow: first 16 Mar. (1) WW (DRJ); Barn Swallow: first 16 Mar. (4) WW (DRJ); Cliff Swallow: 4 Apr. (2) Patrick Henry Lake (SG, MD); Red-breasted Nuthatch: last 7 May (1) RCo (CPN); House Wren: 27 Apr. (1) Da (LD, Chris Haney); 10 May (1, banded) Da (BB); Bewick's Wren: 8 Apr. (1) JC (SG); 4 May (2) SeV (BB, DRJ, JBB); 5 May (1) SB (KLD); Long-billed Marsh Wren: 17 Apr. (1) KP (RL); 26 Apr. (5) Washington and Sullivan Cos. (ETOS); 1 May (1) AS (MD, SG); Short-billed Marsh Wren: 26 Apr. (1) AS (GE, HF); 3 May (2, banded) Da (BB).

Thrush-Sparrow: Hermit Thrush: last 27 Apr. (1) Tracy City (DRJ); Swainson's Thrush: 14 May (2, banded) DL (BB); Veery: 27 Apr. (1, banded) Da (BB); 14 May (2, banded) DL (BB); Blue-gray Gnatcatcher: 5 May (66) TRG (KLD); Water Pipit: 19 Apr. (1) SeV (LSF); Red-eyed Vireo: 28 Apr. (90) TRG (KLD); Warbling Vireo: 5 May (1) AM (KLD); Tennessee Warbler: 5 May (48) TRG (KLD); *ORANGE-CROWNED WARBLER:* 22 Apr. (1) JC (MD, SG); Nashville Warbler: 5 May (2) TRG (KLD); Black-throated Blue Warbler: 11 May (1) Lookout Mtn., Ga. (GLB); Northern Waterthrush: 26 Apr. (10, banded) Da (BB); Louisiana Waterthrush: first 22 Mar. (1) Da (LSF); *MOURNING WARBLER:* 10 May (1, banded) Da (BB); Canada Warbler: 14 May (2, banded) DL (BB); American Redstart: 28 Apr., 5 May (40) TRG (KLD); Bobolink: 12 May (200) HRA (KLD); Northern Oriole: 28 Apr. (5) TRG (KLD); Rusty Blackbird: 20-26 Apr. (12-15) AS (GE, HF, et al); Blue Grosbeak: first 20 Apr. (1) AS (GE, HF); *EVENING GROSBEAK:* 16 Mar. (2) Da (LSF); 22 Apr. (5) JC (PR); Purple Finch: last 27 Apr. (8) K (FPA, CPN, MDW); *PINE SISKIN:* 22 Mar. (2) CH (AG); 12 Apr. (1) K (JGH); Savannah Sparrow: last 9 May (2) SB (LD); Grasshopper Sparrow: 4 May (6) SeV (BB, DRJ, JBB); Fox Sparrow: last 26 Apr. (2) AS (Virginia Curtiss); Lincoln's Sparrow: 6 May (1, banded) Da (BB); 10 May (1, banded) Da (BB).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BL—Boone Lake; BWP—Booker T. Washington State Park; CB—Chickamauga Battlefield, GA; CC—Campbell County; CH—Chattanooga Area; ChL—Chickamauga Lake; CL—Cove Lake; Da—Daus; DL—Dunlap; HRA—Hiawassee River Area; JC—Johnson City; K—Knoxville; KP—Kingsport; NL—Nickajack Lake; PSF—U. T. Plant Science Farm; RCo—Roane County; SB—Savannah Bay; SeV—Sequatchie Valley; TRG—Tennessee River Gorge; WW—Wildwood, Ga.

Observers: FPA—Fae P. Andrews; BB—Benton Basham; GLB—Gary L. Bayne; JBB—J. Branson Block; MD—Martha Dillenbeck; HD—Helenhill Dove; KLD—Ken and Lil Dubke; KD—Ken Dubke; LD—Lil Dubke; GE—Glen Eller; HF—Harry Farthing; AG—Ann Gibson; SG—Sally Goodin; BRH—Beth R. Hinton; JGH—James G. Holt; JCH—J. C. Howell; DRJ—Daniel R. Jacobson; RL—Richard Lewis; DJL—Dick and Joyce Lura; GM—Gary Muffley; CPN—Charles P. Nicholson; JBO—J. B. Owen; PR—Pete Range; ES—Ed Schell; LSF—Lee Shafer Family; JS—Jake Slonaker; ETOS—Elizabethton TOS; MDW—Morris D. Williams.

Daniel R. Jacobson, P. O. Box 6, Wildwood, GA 30757.

EASTERN MOUNTAIN REGION—The weather during the last half of March was wet and warm. The entire month of March had more than double the normal amount of rainfall. The month of April was normal in all aspects. The first half of May was wetter than usual with rain falling on 9 out of the first 15 days. Although the weather was wetter than usual, it did not seem to affect the nesting species. No heavy migration waves were observed and we had very few *unusual* sightings reported.

Loon-Gull: Common Loon: last seen 9 May (1) WatL (LRH). *DOUBLE-CRESTED CORMORANT:* 11 May (4) WatL (PR). Green Heron: first returned 16 April (1) HS (GW). Yellow-crowned Night Heron: 26 April (1 adult) HS (GW). Northern Shoveler: 30 March (5) WatL (GE). Ring-necked Duck: last seen 26 April (2) Wag Is (GW). Bufflehead: last seen 12 May (3) WibL (GE). Red-breasted Merganser: 16 March (17) WatL (PR). Black Vulture: 14 April (1) St. Johns pond (MD). Sharp-shinned Hawk 23 March (1) RM (GW). Cooper's Hawk: 30 March (1) Eliz. (LRH); 26 April (1) RM (TMS). Broad-winged Hawk: first returned 15 April (1) RM (TMS). Marsh Hawk: 12-13 April (1) HC (TMS). Osprey: last seen 10 May (1) SV (GW, GE). Sora: 19 April (4); 26 April (2); 1 May (1) all at GLS (GW, GE). Spotted Sandpiper: first returned 15 April (1) SV (LRH). Solitary Sandpiper: first returned 20 April (3) SV (GE, HF). Greater Yellowlegs: first returned 9 April (2) SV (MD, SG). Lesser Yellowlegs: first returned 9 April (1) Wag Is (MD, SG). Ring-billed Gull: 30 March (1) near RM (TMS).

Owls-Vireos: Barn Owl: 1 active nest in Eliz (4 young banded 13 May) (LRH, GW and GE). Screech Owl: 1 nest in Eliz (2 young banded 22 May) (LRH). Barred Owl: 26 April (2) HM (GW). *LONG-EARED OWL:* 10 Apr. (1) residential plantings, Bristol (Diane Wilson). Chuck-wills-widow: 26 April (1) Milligan (GE, LRH); 15 thru 26 May (1 regular) Eliz (GE). Whip-poor-will: very early return 30 March (1) HS (GE). Red-headed Woodpecker: 9 May (1) Bri. (DW). Tree Swallow: 15 April (60) SV (GW). Raven: 1-3 irregularly on RM (TMS, ES, FWB). Long-billed Marsh Wren: 26 April (1) HS (GW); (1) RC (LRH). Hermit Thrush: last seen 17 April (1) Bri. (DW). Water Pipit: 23 March (40) SV (GW). *WARBLING VIREO:* 26 April (1) WatR (GW); 10 May (1) RM (GE, GW).

Warblers-Sparrows: Prothonotary Warbler: 7 May (1) Bri. (JA). Swainson's Warbler: 26 April (1); 3 May (3), 12 May (1) RCP (GE, HF, ES). Blue-winged Warbler: 3 May (1) RCP (GE); 7 May (1) Bri. (JA). Cerulean Warbler: 26 April (1) near RCP (GE, HF); 28 April (1) HS (GW, DL). Blackpoll Warbler: 8 May (1) Bri. (JA). Pine Warbler: thru 10 May (1) WatL (GW, DL). Louisiana Waterthrush: early return 25 March (1) Eliz (JM). Wilson's Warbler: 5 May (1) Bri. (Mrs. J. Cantwell). Rusty Blackbird: last seen 30 March (5) HS (GW, DL). Blue Grosbeak: regular during period (2) Eliz (JM) no nest found. Evening Grosbeak: last seen 3 May (4) Eliz (GE). Purple Finch: last seen 26 April (5) HS (GW). Pine Siskin: 26 April (16) RM (FWB). Vesper Sparrow: 26 April (1) RC (LRH, JM). White-crowned Sparrow: last seen 26 April (1) SV (GW). White-throated Sparrow: last seen 11 May (1) Eliz (GE). Fox Sparrow: 18 March (4) HC (TMS); 7 April (1) RM (FWB).

Locations: Bri—Bristol, Eliz—Elizabethton, GLS—Great Lakes Swamp (near Eliz), HC—Heaton Creek (near RM), HS—Hunter Swamp (near Eliz), RC—Roans Creek, RCP—Rock Creek Park (near Erwin), RM—Roan Mtn., SV—Siam Valley (near Eliz), Wag Is—Wagners Island (near WibL), WatL—Watauga Lake, WatR—Watauga River, WibL—Wilbur Lake.

Observers: JA—Judy Abbott, FWB—Fred Behrend, MD—Martha Dillenbeck, GE—Glen Eller, HF—Harry Farthing, SG—Sally Goodin, LRH—Lee R. Herndon, DL—Dick Lura, JM—John Martin, PR—Pete Range, ES—Ed Schell, TMS—Tommy and Maxie Swindell, DW—Diane Wilson, GW—Gary Wallace.

Glen D. Eller, Route #3, Grandview Terrace, Elizabethton 37643.

WINTER SEASON REPORT (1 NOV. - 15 MARCH)

CENTRAL PLATEAU AND BASIN REGION—*Loons-Gulls:* Common Loon: 21 Dec. (25) Percy Priest Lake (BF). Horned Grebe: 300 wintered at Woods Reservoir (Carroll and Stanley Barr). Double-crested Cormorant: 10 Nov. (1) OHL(BF, SF). *WHITE-FRONTED GOOSE:* 28-28 Nov. (2) CCNWR (Sam Barton, TOS). *OLDSQUAW:* 15 Jan. (2) MP (TH). *WHITE-WINGED SCOTER:* 17-29 Nov. (2) Monterey (BJ). *SURF SCOTER:* 15-26 Mar. (1) MP (TH). Turkey Vulture: winter roost of 50 near Ashland City (Rocky Milburn). Sharp-shinned Hawk: 5 reports during period from No. Central Tenn. Cooper's Hawk: 6 reports during period from No. Central Tenn. *ROUGH-LEGGED HAWK:* 9 reports during period from No. Central Tenn. Golden Eagle: 6 wintered in Cannon Co. (FB); 7 Dec. injured bird captured near Giles and Marshall County lines (fide MLB); 22 Nov. (2) B (DH, RH); 8 Feb. (15) Dale Hollow Lake (fide DH, RH). Sandhill Crane: 15 Nov. (40) FC (fide DH, RH); 16 Nov. (42) B (DH, RH); 6 Mar. (6) FC (DH, RH). American Woodcock: 9 Mar. (5, preenting) NA (HR, JR). Spotted Sandpiper: 10 Nov. (1) NA (MLM). Greater Yellowlegs: 18 Nov. (1) LC (LWC). Bonaparte's Gull: 21 Jan. (6) MP (TH).

Dove-Blackbird: Mourning Dove: 28 Dec. (nest, 1 egg), 29 Dec. (2 eggs), 9 Jan. (empty) NA (MLB, Pat Stalling). *GROUND DOVE:* 3 and 8 Dec. (1) DRU (Jerald Ledbetter, fide MLB). Great Horned Owl: 3 active nests (5 young) FP (MDW). Barred Owl: 2 Mar. (nest, 2 eggs) FP (MDW). *SHORT-EARED OWL:* 20 Nov. (4) (MLM), 7 wintered (MLB) all Smyrna Airport. *LONG-EARED OWL:* 22 Dec. - 4 Jan. (1-3) Cheatham Dam ((MLB). Common Nighthawk: 2 Nov. (1) NA (MLB). Great Crested Flycatcher: 8 Nov. (1) W (FB). Purple Martin: 1 Mar. (1) NA (HR, JR). Bewick's Wren: 15 Mar. (4) Loretto, LC (DS). Gray Catbird: 10 Nov. (1) NA (KAG). Water Pipit: 23 Nov. (60) CCNWR (BC, LC); 22 Dec. (40) H (BJ); 4 Jan. (1) CL (MLB); 28 Feb. (35) FP (MDW). Solitary Vireo: 4 Nov. (1) W (FB). Orange-crowned Warbler: 1 Nov. (1, banded) NA (KAG). Nashville Warbler: 9 Nov. (1) OHL (BF, SF). Yellow-rumped Warbler: 9 Mar. (185) David Crockett State Park (DS). Chestnut-sided Warbler: 2 Nov. (1) OHL (BF, SF). Pine Warbler: 1 Mar. (1) FP (MDW). Palm Warbler: 6 reports during period from No. Central Tenn. Ovenbird: 7 Nov. (1) W (FB). Rusty Blackbird: 28 Feb. (80) FP (MDW).

Tanager-Longspur: Scarlet Tanager: 27 Nov. (1, banded) NA (KAG). *ROSE-BREASTED GROSBEAK:* 12 Feb. - end of period (1 imm. male) Brentwood (Fannie Murphy). *BLACK-HEADED GROSBEAK:* 2 Jan. - end of period (1 imm. male) ST (fide DC, PC). Indigo Bunting: 16 Jan. - 15 Mar. (1-2) ST (fide DC, PC); 22 Feb. (1) NA (Louise Jackson). Dickcissel: 1 Nov. - 6 Mar. (1) M (Alberta Spence); 10 Nov. (1) Gallatin (DC); 21 Dec. (1) H (BJ); Mid.-Jan. (1) M (Alice and Claude Stedman). Evening Grosbeak: 7 Nov. (1) W (FB); 27 Nov. (1) LC (LWC); 27 Nov. (2) Manchester (Ethlyn McGee). *HOUSE FINCH:* 17 Feb. - end of period (1 male) OHL (BF, SF). *LeCONTE'S SPARROW:* 23 Nov. (1) CCNWR (TOS); 6 Dec. (2) DRU (DC, PC); 4 Jan. - 3 Feb. (2) H (BJ). Vesper Sparrow: 22 Dec. (7) H (BJ). Tree Sparrow: 30 Nov. (1) NA (JR). Lincoln's Sparrow: 23 Nov. (1) CCNWR (MDW). *LAPLAND LONGSPUR:* 22-23 Nov. (25-70) CCNWR (BC, LC, TOS).

Locations: B—Byrdstown; CCNWR—Cross Creeks National Wildlife Refuge; CL—Cheatham Lake; DRU—Duck River Unit, Tennessee National Wildlife Refuge; FC—Fentress County; FP—Five Points; H—Hartsville; LC—Lawrence County; M—Murfreesboro; MP—Monsanto Ponds, Columbia; NA—Nashville Area; OHL—Old Hickory Lake; ST—South Tunnel; W—Woodbury.

Observers: FB—Frances Bryson; MLB—Michael Bierly; BC—Ben Coffey; LC—Lula Coffey; LWC—Lloyd Clayton; DC—Dot Crawford; PC—Paul Crawford; BF—Bill Fintel; SF—Sally Fintel; KAG—Katherine Goodpasture; BJ—Bill Jones; DH—Dave Hassler; RH—Robbie Hassler; TH—Thomas Hendrickson; MLM—Margaret Mann; HR—Heather Riggins; JR—John Riggins; DS—Don Simbeck; TOS—Members Tennessee Ornithological Society; MDW—Morris Williams.

Morris D. Williams, Dept. of Zoology, Univ. of Tenn., Knoxville 37916.

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BIRDS.

THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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CEMBER, 1975
VOL. 46, NO. 4

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 46 DECEMBER, 1975 NO. 4

INCIDENT OF NEST-SITE RELATED AGGRESSIVE BEHAVIOR IN THE FLICKER, *COLAPTES AURATUS*

PHILIP M. MATHIS

Several reports describing the keen competition between Flickers (*Colaptes auratus*) and Starlings (*Sturnus vulgaris*) for nest sites have been recorded (A. C. Bent. 1965. *Life Histories of North American Wagtails, Shrikes, Vireos, and Their Allies.* U. S. Nat'l Mus. Bull. 197). These reports emphasize the aggressiveness and competitive success of the Starlings. Apparently, Flickers often excavate holes to be used for nesting only to be driven away by Starlings —sometimes repeatedly. Despite the fact that aggressive behavior is often exhibited, success for the Flicker is normally achieved through the avoidance of Starling-infested areas rather than through any type of aggressive behavior. Apparently, my actions of 21 May 1975 triggered the display of aggressive behavior described in the following narrative.

Activities related to the 21 May incident began in early April when I observed a male Flicker excavating a hole in the dead branch of a silver maple (*Acer saccharinum*) while its mate foraged nearby. The maple stands on the vacant lot west of my residence which is just north of Murfreesboro. Late one afternoon two or three days afterward, Dr. Clarence Greever and I observed a Flicker peeking from the hole situated approximately 25 feet above the ground. The pair of Flickers had apparently chosen the newly excavated hole as a nest site. Later when I decided to check on the Flickers' progress, they were not to be found. However, I noted some straw protruding from the nest opening. This subsequently proved to be part of a shabbily constructed Starling nest.

At approximately 11:00 CDT on 21 May, I shot four Starlings on the vacant lot adjacent to my home. Included among the dead was the male member of the pair occupying the hole previously excavated by the Flickers. Later that day around 18:00 CDT, my attention was drawn to a noisy commotion caused by the arrival of a pair of Flickers. I presumed they were the original Flickers.

The female Starling circled the vicinity surrounding the nest site emitting harsh hissing sounds. Occasionally, she would swoop within a few feet of the Flickers, but never physically attacked them. The Flickers gave no evidence of fear, although they watched the Starlings constantly and the female Flicker moved alongside the nest opening each time the Starling approached the nest site. While this action was taking place outside the nest, the young Starlings inside clamoured loudly.

Next, the male Flicker entered the nest and a few minutes later managed to force out of the hole an almost fully feathered young Starling; the first of four which he would eventually eject. The young Starlings apparently offered considerable resistance to ejection. The removal of all four nestings required about an hour. One nesting was particularly difficult to remove. As the Flicker attempted to push the young bird from the nest opening, the two of them became entangled and both birds tumbled to within perhaps four or five feet of the ground before the Flicker broke free. The following day, I collected and disposed of all four nestings.

Following the expulsion of the young Starlings, the male Flicker commenced to remove, billful at a time, straw and other nest material. Nest cleaning was still in progress at nightfall and continued intermittently all of the following day. The female Flicker did not participate in the nest cleaning, but entered the nest during brief absences of her mate.

As the nest cleaning of 22 May progressed, several adult Starlings arrived and perched on branches near the nest. The number of Starlings varied from hour to hour, but three to five were consistently present. The Starlings showed no hostility, but rather seemed to be biding their time waiting for the Flickers to leave so they could occupy the nest. The Flickers, however, were cautious not to let such an event occur. Each time the male left the nest, the female waited by the nest opening and immediately replaced the male in the nest and remained there until the male returned. By 18:00 CDT the Starlings had moved out of the immediate area, ending the day's siege.

At approximately 19:00 CDT 22 May, I watched the Flickers copulate on a branch near the nest and considered the pleasant prospect of having a brood of young Yellow Shafts so near my home. The following day, though, the Starlings were back and the Flickers were again cautiously guarding their nest. On 24 May I did not see the Flickers and have not seen them since. On 25 May I observed a Starling carrying straw into the nest opening and later a pair of Starlings occupied the nest site again.

During the nesting season, pair bonds among avian species are sometimes abruptly broken through natural mortality. Following such breaks, the surviving mate may be unable to successfully defend the nest. The results of my actions of 21 May suggest that the loss of one member of nesting pair of Starlings may reduce nest defending capacity by an amount sufficient to permit competing Flickers to regain control of a previously lost nest site. Control of the nest site by Flickers, however, appears likely to be short-lived since new pairs of Starlings will probably arrive and contest the ownership of the nest.

Department of Biology, Middle Tennessee State University, P. O. Box 578, Murfreesboro 37132.

RED-NECKED GREBE SIGHTED ON CHICKAMAUGA LAKE

KENNETH H. AND LILLIAN H. DUBKE

Upon returning from a trip to Chattanooga on 18 February, 1975, it was decided to drive by Booker T. Washington State Park and observe the waterfowl on Chickamauga Lake. Upon arriving, we turned into the boat ramp to make our observations. In driving down the incline, Lil noted, at a distance of approximately 25 meters, what appeared to be an unusual grebe. She called this to my attention and I casually noted the grebe's somewhat larger body, longer, thicker neck, larger head and bill, however, upon stopping the car, I picked up my 7 x 35 wide-angle binoculars and started panning for waterfowl to the left. In the meantime, Lil immediately picked up her 7 x 35 binoculars and noted details of the grebe, which was on the right. In addition to the above characteristics, she observed an obvious crescent shaped whitish mark on the head that extended from the throat around the back of the cheek to the upper nape, and the overall grayish appearance, especially on the neck and side of body. There was a lack of white on the face, neck and breast that could be expected in the similar Horned Grebe (*Podiceps auritus*). Upon the obvious identification of the Red-necked Grebe (*Podiceps grisegena*), Lil alerted me to look quickly, however, the bird suddenly submerged. We kept scanning the lake and the grebe surfaced in a burst of labored energy, only a short distance away. As the grebe paddled over the water, it took flight, flying only a few meters above the water across the lake. Two conspicuous white patches on each wing were noted. Its neck was held down in typical grebe fashion. We were both able to observe these field marks through our binoculars.

The light conditions at the time of observation would not be described as perfect, however, very suitable for the above noted field observation. The time of observation was 16:00 hours. The day had been generally rainy, misty and overcast, with low hanging clouds. The bird was followed from view as it flew from only a few meters, to completely across the lake and out of sight. As we did not have a telescope with us, we immediately drove home and returned to survey the entire area and found nothing. The next day visibility had improved remarkably and we were on the scene again shortly after 8:00 hours, to follow up the previous day's observation. Again the bird was not found.

In order to gain more insight into the above observation and the recording of the species, all available reference material was checked. It was noted that Alsop (1972) listed the Red-necked Grebe in his "Preliminary List of Tennessee Birds"; Parmer (1970) records one observation by Albert F. Ganier at Nashville, 1 May, 1920. Both the A.O.U. Check-list (1957) and Palmer (1962) note the bird's presence in Tennessee. Lawrence Trabue (1965) presents some very interesting discussions on the sighting of the Red-necked Grebe in Tennessee. Parmer cites Albert Ganier's detailed description from his personal card file on his observation of the bird at Radnor Lake, giving description, plumage and size. However, the only other apparent record of the species in the state is discussed in detail by Lawrence Trabue in his article. It appears this bird was found on a Christmas Count in 1926, without any details given whatsoever on its rarity. On the same count, a White-eyed Vireo (*Vireo griseus*) was reported with complete details given. Trabue gives little credence to the observation of the grebe and speculates that it could have been a Horned Grebe, which is common in the winter. We agree with his conclusion. The A.O.U. Check-list as well as Bent (1919) record the species at Reelfoot Lake. We can find no record to support this observation.

The Red-necked Grebe is casually found in the winter along the coast with a few records in Florida, so its appearance here was not totally unexpected. This observation should alert field observers to carefully observe all grebes.

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Route 1, Box 134-D, Ooltewah 37363.

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THE SIXTY-FIRST ANNUAL SPRING TOS MEETING

CHATTANOOGA, TENNESSEE

30 APRIL, 1, 2 MAY 1976

Headquarters will be at the Quality Inn South, East Ridge Exit, I-75 South from Chattanooga. Make reservations directly to Quality Inn South, East Ridge, for special rates. Additional information will be sent out well in advance by the host chapter Chattanooga. If further details are needed contact Ken and Lil Dubke, Route 1, Box 134-D, Ooltewah, TN 37363.

BIRD FINDING IN TENNESSEE

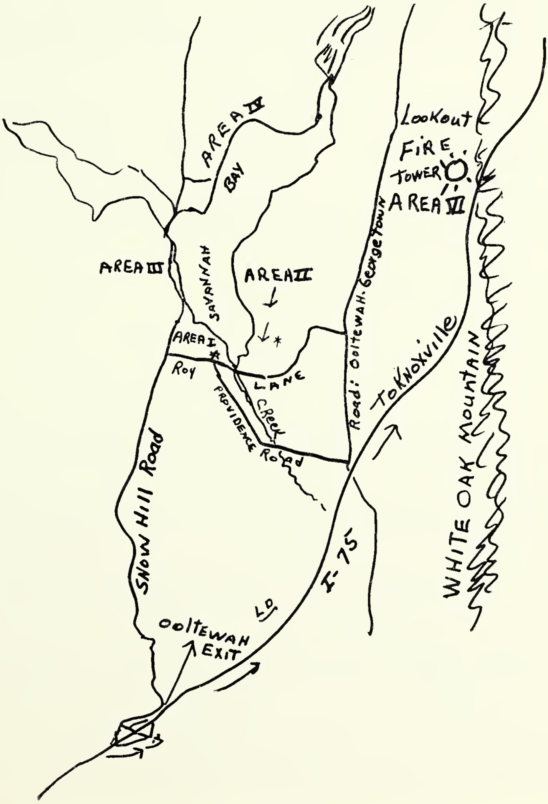
SAVANNAH BAY

Kenneth H. and Lillian Dubke

One of the finest for a variety of birds in Hamilton County is an area we locally call Savannah Bay. It is reached from Chattanooga by traveling I-75 North, approximately 16 miles, to Ooltewah Exit, drive under Freeway, turn right onto Snow Hill Road, continue approximately 4 miles (a silo and barn on left, also sign Providence Baptist Church) turn right on Roy Lane.

In fact we were so attracted to the location that we bought land and built our home on the south end of the Bay. We moved into our home 17 July, 1974. The house faces north with a different view from each window: White Oak Mountain, brushy areas, grass and lake, and with winter lake draw-down, extensive mud flats. TVA fills the lake to full pool by mid-April and lowers the level to mud flats by October. This enables us to conveniently observe feeding waterfowl, shorebirds and herons in the winter.

AREA I: With ease, one can look out the window and pan with scope the exposed mud in winter and during migration for shorebirds, hawks, waterfowl,


AREA IV
BAY
SAVANNAH
AREA III
AREA II
AREA I
Roy
LANE
PROVIDENCE
Creek
Road
Road: Ooltewah-Georgetown
Lookout
FIRE
TOWER
AREA VI
To Knoxville
WHITE OAK MOUNTAIN
Snow Hill Road
I-75
Ooltewah
EXIT

gulls and terns. To verify suspected rare or unusual species and numbers, it is just a simple matter to walk to the water's edge.

AREA II: This is TVA property, it is low, wet and marshy and will therefore have no permanent structure built upon it. Every few years the TVA Division of Reservoir Properties, brushes the area down for mosquito control. It is in this area that migrating flocks of Orchard Orioles have been found consistently after the nesting season until the end of August. In 1974 a late summer Kingbird roost, with numbers up to 80 was present. Short-billed Marsh Wrens have been found during this period. In the winter there is an abundance of food for sparrows.

AREA III: This is a convenient place to get closer observations of the birds feeding on the exposed mud flats.

AREA IV: Same as above.

AREA V: This is the north end of the Bay and when the lake is full in summer has many little islands which make very attractive areas for Wood Ducks to feed. Surrounding the area are hedgerows and fields. In 1975 a Red-shouldered Hawk was found nesting in the timbered, swampy area.

AREA VI: White Oak Mountain. To date this area has been explored to a limited extent for woodland species. The mountain goes to an elevation of 1800 feet and has a fire tower which makes an excellent hawk migration observation point.

Close to 200 species have been found in the area. The unique feature of the area is the apparent rich productivity of the flats to consistently sustain a good wintering population of 85 to 165 Dunlin, 75 to 100 Common Snipe and an equal number of Killdeer. To our knowledge, and in discussion with other active Tennessee field observers, there is no other site in the state that harbors such a varied combination of species.

Route 1, Box 134-D, Ooltewah 37363.

THE 1975 MISSISSIPPI VALLEY WINTER BALD EAGLE COUNT

The Tennessee Ornithological Society will conduct a one-day Bald Eagle Count on Saturday, 14 February. This count will be held in cooperation with the Mississippi Valley Winter Bald Eagle Survey under the direction of Elton Fawks. If the weather is bad in your area the count can be held on 15 February. The totals of individual counts should be called in to 1-800-342-8406 on 16 February. The final report can be mailed later to Bill Yambert, Tennessee Wildlife Resources Agency, Box 40747, Nashville, Tennessee 37204.

ROUND TABLE NOTES

WOOD STORK SEEN IN STEWART COUNTY—On 25 May, 1975, while approaching Clarksville, Tennessee, 1.2 miles west of the Montgomery-Stewart County line on U. S. Highway 79, Michael Dinsmore sighted a Wood Stork, *Mycteria americana,* at 09:10 EDT soaring above the highway. Noted were the dark head with heavy decurved bill, white body, black tail, extensive areas of black on trailing sides of wings, and large overall size. The bird was believed to be an immature due to a predominately yellow bill (Robbins, et al. 1966. *Birds of North America.* Golden Press, New York). It soared with its neck fully extended and its legs extended past its tail. No other bird looks like this in flight. It was as large as a Great Blue Heron, *Ardea herodias,* but this species flies with its neck folded back to its shoulders. It was much too large to be an ibis.

The bird was observed from below in excellent light, through 10 x 35 binoculars as it soared overhead at a height of approximately 250 feet for about two minutes. It then flew off to the northwest in the general direction of Lake Kyle, within the Fort Campbell Military Reservation. Immediately, an hour was spent searching for the bird in the area of Lake Kyle with no luck. Several return trips to the area on subsequent days also yielded no sighting of the bird. The weather was warm and sunny with a slight overcast beginning to build up with the temperature in the 70's. The general habitat was one of a rural residential farm community to the south of Highway 79 and plantations of *Pinus taeda* and deciduous woodlands to the north.

The observer has had previous experience with all common wading birds of the Middle Tennessee area, and also with other waders and ibises in Florida.

The Wood Stork exhibits a rather extensive post-breeding dispersal northward from its breeding grounds along the southeast coast and in Florida (Palmer, R. S. 1962. *Handbook of North American Birds.* Vol. 1. Loons through Flamingos. Yale University Press). The area of this dispersal usually includes west Tennessee along the alluvial plain of the Mississippi River, but not middle and east Tennessee. Mike Bierly of Nashville was kind enough to search back issues of *The Migrant* and located 7 records of the Wood Stork east of the Mississippi alluvial plain where the sightings usually occur. Two records were in 1925 and three were in the 1930's. The two most recent records include one near Tullahoma in 1955 (*The Migrant,* 26:43), and one near Chattanooga in 1966 (*The Migrant,* 37:82). The present record therefore represents the first reported sighting of a Wood Stork in nearly 9 years in Tennessee east of the Mississippi alluvial plain.

Michael O. Dinsmore, P. O. Box 182, Indooroopilly, Queensland, Australia 4068.

SURF SCOTERS AT SAVANNAH BAY, CHATTANOOGA—On 11 May, 1975, while panning Chickamauga Lake, Savannah Bay, with a 20x scope, I observed two Surf Scoters (*Melanitta perspicillata*). With visiting friends I quickly walked down to the waters' edge and under excellent light conditions, the sun to the rear, and at a distance of 75 meters, I could easily distinguish the field marks of a first year male and a female Surf Scoter. Of interest, Francis H. Kortright (1942, *The Ducks, Geese and Swans of North America,* The Stackpole Co., Harrisburg, Pa.), comments that the main northward flight of the Surf Scoter takes place along the coast in May.

In addition to myself, other observers were my husband, Ken, E. O. Grundset, Roger Woodruff, Gertrude Fleming, Ann and Carl Gibson and others.

LILLIAN H. DUBKE, Rt. 1, Box 134-D, Ooltewah 37363.

PURPLE SANDPIPER SIGHTING IN SUMNER COUNTY, TENNESSEE—On 6 June 1975 at about 17:30 CDT, we made a routine check of the ash disposal pond at the Gallatin Steam Plant. We listed two Mallards (*Anas platyrhynchos*), one Wood Duck (*Aix sponsa*), three Killdeer (*Charádrius vociferus*), two Least Sandpipers (*Erólia minutilla*), and twelve Semipalmated Sandpipers (*Ereunétes pusillus*). Also present were two medium-sized shore birds, resting and preening on the ash. One, we first thought, was a Stilt Sandpiper (*Micropálama himántopus*) in an unusual plumage. Later, we decided to list this bird "unidentified." We concentrated most of our attention on the second bird. Its most noticeable field mark was the orange-yellow of the short legs. We then noticed that the medium-length beak was yellow at the base and black at the tip. The yellow shaded out to black about midway between base and tip. A quick check of *Birds of North America* by Robbins et al, confirmed Dot's suspicion that the only sandpiper with these field marks is the Purple Sandpiper (*Erolia maritima*). However, this bird was brown, not the slaty-gray of the winter birds we have seen in Massachusetts.

The sky was clear and the bright afternoon sun was behind us, affording the best light conditions possible at this location. Our spotting scope is a Bushnell 20-45x. The bird was approximately 100 yards out on the ash. It was somewhat shorter but plumper than the Killdeer and was noticeably larger than the Semipalmated Sandpipers. The head, back and wings had typical "peep" plumage, basically brown. The throat and breast were strongly streaked with brownish and the belly was pale. The bird did not feed or fly while we watched it. We swapped the book and the spotting scope back and forth for about 30 minutes, then went home to call other birders. It was gone the next day and was not seen again.

Obviously, a Purple Sandpiper in Tennessee in June is a very unlikely bird indeed, so we checked the references we have on the bird.

Peterson's *A Field Guide to the Birds,* states: "In breeding plumage (rarely seen here) the bird is browner with a few rusty marks on the back and a heavily streaked breast."

On page 152 of Bent's *Life Histories of North American Shorebirds* (part one), casual records are listed from Bermuda, New Jersey, Georgia, Florida (Key Biscayne and Gordon's Pass), Missouri, Illinois, Ohio and Wisconsin. The Missouri and Wisconsin records are spring records.

There are two previous records of Purple Sandpipers in Tennessee (*The Migrant* 43:62-63). The first record was at Hiwassee Island on 25 November 1962 and the second on 8 June 1967 at Bays Mountain Lake.

These records seem to indicate that, even though the Purple Sandpiper is a bird of the far north, occasional individuals tend to wander erratically. We feel sure that "our" bird was one of these individuals.

PAUL AND DOT CRAWFORD, Route 4, Gallatin 37066.

BLACK-LEGGED KITTIWAKES AND LAUGHING GULLS AT CHICKAMAUGA DAM, CHATTANOOGA—On 7 December 1971, Lee Shafer observed on Nickajack Lake what appeared to be 2 adult and 2 immature Black-legged Kittiwakes (*Rissa tridactyla*). Upon arriving home he immediately called Benton Basham, who, the next day, drove to the location to confirm the sighting. They were not there, however, on a hunch the birds could possibly have moved up stream toward Chickamauga Dam he checked that site. His hunch was correct, as he found not only the Kittiwakes but also identified winter plumaged Laughing Gulls (*Larus atricella*). The word quickly spread and many people had an opportunity to leisurely view not only the northern Kittiwakes, but also the costal breeding Laughing Gulls in an unique combination of circumstances for our inland location. In addition to the writers seeing the birds others included the entire Lee Shafer family, Benton Basham, Floyd Murdock, Fred J. Alsop, III and many field observers from across the state.

The 2 adult Kittiwakes were typical winter plumage; black legs, solid black wing tips, dark diagonal band across the wings and dark mark at base of neck in back. The plumage of the two immature Kittiwakes included a dark neck band, black legs, black wing tips, terminal black band on slightly forked tail. The Kittiwake numbers ranged from one to four, while the Laughing Gulls ranged in numbers from eight to fifteen.

The Kittiwakes were last observed on 13 December by the writers and the Laughing Gulls on 15 December.

These are further details as recorded in *The Migrant* 43 (1):25.

KENNETH H. AND LILLIAN H. DUBKE, Route 1, Box 134-D, Ooltewah 37363.

LONG-EARED OWL IN GREENE COUNTY, TENNESSEE—The Long-eared Owl (*Asio otus*) was observed seven times from 9 March to 25 March, 1975, at Kinser Park adjoining Lake Davey Crockett south of Greeneville on the Nolichuckey River. The first sighting was 9 March 16:35 EDT. Flushed from a honeysuckle-overgrown thicket of mixed cedar, pines, and small deciduous trees, the first owl was sighted flying somewhat in the manner of the Chuck-will's-widow (*Caprimulgus carolinensis*) on a short daytime flight. During the attempt to sight the first owl, a second owl left the roost and alighted near the first owl in an open pine higher on the ridge. At this time the owls were identified. The first owl moved away so that only one owl was well observed through 7 x 50 binoculars from 50 feet distance by observer Royal Beecher Spees (RBS). The owl was more the color of that shown in *A Guide to Field Identification, Birds of North America,* Robbins, Bruun & Zim, 1966, Western Publishing Co., p. 161, than that shown in *A Field Guide to the Birds, Eastern Land and Water Birds*, Peterson, 1947, Houghton Mifflin, Plate 39 adjoining p. 150, but sat more erect and trim (feathers close to the body rather than "fluffed" with air) than either handbook depicts the owl. This was assumed to be more of an "alarmed" posture than those depicted in the paintings. The day was sunny and clear with temperatures in the low 40's following a night in the 20's with light wind and light snowfall. The weather preceding the sighting had not been severe in the region at this elevation.

The most "whitewash" marked roosting cedar was in a small sink on the north side of a low ridge leading northeast from the lake area to higher pasture land (1247 feet to 1400 feet). This well-used tree was about 25 feet tall, the roost being about 16 feet up and about level with the upper south side of the sink. Approach was first made up to the lower north side of the sink from the adjoining overgrown field during exercising of a bird dog. The area had been laid out several years ago as a multiple-stand field practice archery range, affording a number of open paths through the area. During the past two years there has been construction of recreation facilities surrounding this wooded area, including for the past 8 months a golf course, and perhaps some concentration of the owl food supply due to movement from these areas to the fields adjoining the wooded areas. The principal sighting area would total some 10 acres with additional wood lots adjoining in the park and around the lake. The attempt to get a second sighting of the birds that day with a second observer at 18:15 EDT proved fruitless.

The second sighting was made in the same manner as the first on 15 March 1975 at 18:45 EDT with weather partly cloudy and temperatures in the 40's. The two owls were observed to move successively from the roost trees. The first owl moved away from the open pine when the second owl moved into the tree. One was observed, at 50 feet, to perch erect on top of a broken tree stem and except for the "ears" would have easily been missed by the observer because it looked like the end of the stem extended. Observer: RBS.

The third sighting 16 March 1975 was made by several individuals (from 15:10 EDT to 16:30 EDT) when an owl perched in a pine on the south rim of the sink and all members of the party observed the bird in detail, at a distance of 40 feet, both aided and unaided by binoculars. Weather was partly cloudy with a light breeze and temperatures in the 40's and 50's. Members of the party were Gary Wallace, Glen Eller, Dick Lura from the Elizabethton Chapter, TOS; Helen Spees and RBS of the Greeneville Chapter, TOS.

On 19 March 1975 10:00 EDT to 12:45 EDT during showery weather, temperature in the 50's, a party searched the area with no sightings. Party members were Lee R. Herndon, Martha Dillenbeck, Helenhill Dove from the Elizabethton Chapter, TOS; Richard Nevius and RBS of the Greeneville Chapter, TOS.

On the fourth sighting 21 March 17:55 EDT during quiet, sunny, warm (60's) weather, an owl was sighted at 40 feet in a pine thicket 100 feet northwest of the sink and six feet above eye level, aided and unaided by binoculars, by Helen Reed and Greeneville Chapter TOS members Willie Ruth Nevius, Margaret and King Gaut, Helen Spees and RBS. During this observation some observers could hear sounds such as those made by a small cat. In *Birds of Eastern North America,* Frank M. Chapman states that the note of this owl is said to resemble the noise made by kittens.

The fifth sighting 22 March 1975 16:30 EDT with clear sky, light breeze, and temperature in the 60's was in a pine tree on the ridge approximately 100 feet east of the sink roost-tree by a party of Knoxville Chapter, TOS: J. B. Owen, Chuck Nicholson, Fae Andrews, Gary Muffly; Elizabethton Chapter, TOS: Lois and Lee R. Herndon, Pete Range, Jake Slonaker; and by RBS.

The sixth sighting was 23 March 18:30 EDT in the same area with a clear day and temperature in the low 70's by Knoxville Chapter TOS members: Chuck Nicholson, Fae Andrews and Morris Williams. An earlier attempt that day 16:00 to 17:00 by RBS failed.

On 24 March 1975 no sighting resulted during a 3-hour morning search of the area by Fred Alsop and a search 15:00 EDT to 16:00 EDT by Alsop and RBS.

The final observation on the morning of 25 March 1975 was in a pine over a "whitewash" approximately 70 feet west southwest of the sink by Fred Alsop on a clear, windy day with temperature in the 60's.

Unsuccessful attempts to observe the owl were on 30 March 1975 14:00 to 15:00 EDT; 2 April 1975 13:00 to 15:00 EDT.

It was observed that the Long-eared Owl was content to be observed by persons at close range (approximately 25 feet) but that approach by a second person or persons from another direction with the owl turning to watch both directions caused the owl to move away.

All sightings of these birds were within 100 feet of the principal roost tree.

Search of *The Migrant* reveals no reported sightings of the Long-eared Owl north of Chattanooga or east of Nashville in Tennessee.

Dr. Royal Beecher Spees, P. O. Box 356, Greeneville 37743.

WINTER TREE SWALLOWS AT SAVANNAH BAY—On 6 January, 1975, the writer observed a Tree Swallow (*Iridoprocne bicolor*) fly by the window of the den of our house on Chickamauga Lake. The window faces to the north, offering a panoramic view of the vast mudflats and grassy area of the bay. Regularly, while working at the desk, binoculars (7 x 35, wide angle) are stationed nearby for quick identification of various species as they move about. Such was the occasion on the above noted observation.

The maximum temperature on this date was 56 degrees, with the wind blowing in a clear sky from the SW at 18 to 22 mph. Leisure views of the white belly and green-black back were made of the bird as it hawked for insects as close as 50 meters.

On 25 February a similar observation was made except this time there were two birds and Lil was present to enjoy the observation of our early migrating swallows. Again, there was unlimited visibility with wind speeds up to 30 mph from the west and temperature up to 57 degrees.

On 23 February, 1971, an early Tree Swallow was reported in the same area by the author and his wife (*The Migrant* 44 (2):47). The only other published Tennessee winter record of the Tree Swallows that could be located were those discussed by Lawrence O. Trabue in his article "A Review of Tennessee Christmas Counts" (*The Migrant* 36 (2):36-44).

Kenneth H. Dubke, Route 1, Box 134-D, Ooltewah 37363.

BLACK-HEADED GROSBEAK IN SUMNER COUNTY, TENNESSEE— On 17 February 1975, Carol Knauth had an item about a Black-headed Grosbeak (*Pheucticus melanocephalus*) in her "Wing Tips" column in the Nashville Banner. Mrs. Knauth said that the bird had been coming to a feeder in Portland, Tennessee. Since there was no previous record of a Black-headed Grosbeak in Sumner County, we were very interested in seeing the bird.

Photo by Paul Crawford

After some difficulty, we located the bird at the home of Mr. and Mrs. Monte Hagan in South Tunnel. Their mailing address is Portland. South Tunnel is a village located on the edge of the Highland Rim and is about five miles north-northwest from Gallatin.

We called the Hagans and were told that the grosbeak was strictly a morning bird, usually arriving between 06:15 and 06:45 and was rarely, if ever, seen after 10:00.

On the morning of 20 February, we went to the Hagan's home at 06:20 CST. The light was poor at this time but a number of birds were already feeding at a hanging feeder and also on the ground where cracked corn had been scattered. Among the birds present were Cardinals *Cardinalis cardinalis*), Dark-eyed Juncos (*Junco hyemalis*), Purple Finches (*Carpodacus purpureus*), Common Grackles (*Quiscalus quiscula*), Field Sparrows (*Spizella pusilla*), and Rufous-sided Towhees (*Pipilo erythrophthalmus*).

At 06:25, the Black-headed Grosbeak flew in from the thicket that borders the Hagan's back yard, lit on the ground and began feeding on cracked corn. The bird fed until 06:44, then flew back into the thicket. It returned for brief intervals of feeding until 09:08 and was not seen again that morning.

The morning was clear and cool and by 08:00 visibility was very good. The bird fed at a spot about 25 ft. from the observers and 7 x 50 binoculars were used. We made the following notes while we watched the bird: crown, dark sooty with a paler stripe down the center; pale line over the eye; cheek patch, dark sooty as sides of crown; beak, large, pale, with upper mandible slightly darker than lower; throat, breast and flanks, yellowish-orange with orange collar extending around back of neck; light streaking on flanks; rump, rusty-orange; belly, bright lemon-yellow; wings and tail, black with white markings; the wing had a white patch near the front and a white bar farther back. The white markings in the wings and tail were especially noticeable when the bird was in flight.

We recognized the bird immediately as an immature male Black-headed Grosbeak. We had seen several of this species in Colorado and also saw the bird in Murfreesboro in January 1974 (*Migrant* 45:72-73). This bird, and the Murfreesboro bird, were quite similar.

The bird first appeared in the Hagan's yard on 2 January 1975 and was last seen on 21 April 1975. Mrs. Hagan, who had never seen a Black-headed Grosbeak, identified the bird using only Peterson's "*A Field Guide to the Birds.*" Its feeding habits were consistent throughout the period and it never lost its shyness, always flushing at the slightest movement. We saw the bird several times during its stay and it was also seen by several other birders from various parts of the state.

It is of interest to note that there were three additional reports of Black-headed Grosbeaks in Tennessee during the time the Hagan's bird was here. The first bird was reported in Memphis 13 January through 19 January. The second bird was seen at the junction of Collins Road and Tennessee Highway 100 near Nashville. Mrs. Robert McClain described it to Katherine A. Goodpasture. Her description was a good one and she was able to identify a picture of the bird. The third bird was trapped and banded by Katherine A. Goodpasture at her home on 26 March. The last two locations are 9½ air miles apart.

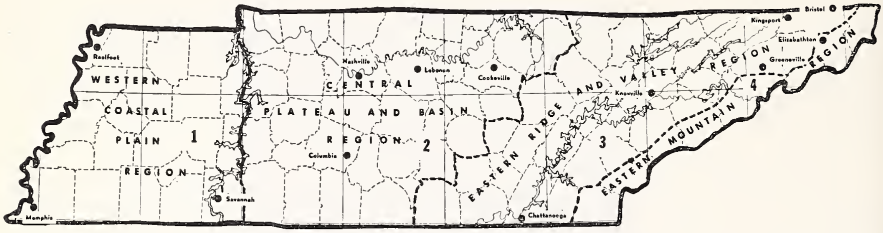
If we can assume that these four birds are separate individuals, the first three months of 1975 produced the same number of Black-headed Grosbeaks as the total previously recorded for Tennessee.

Possibly, future observations will give an indication as to whether this was just an unusual year, if more people are reporting their observations, or if the Black-headed Grosbeak is extending its range.

PAUL AND DOT CRAWFORD, Route 4, Gallatin 37066.

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

NESTING SEASON: 16 MAY - 31 JULY

What a most interesting *nesting season* report! There were many good birders in the field and they found many late migrants and stragglers, some wandering visitors from farther south, some nesting by uncommon species, and some challenging problems that must wait until at least next year's nesting season before they can be answered. In addition to the information presented in the following pages look at all the things we don't know about the species which frequent Tennessee in the summer and make yourself a personal project to add some new information about the State's breeding avafauna next year. Find for yourself the most exciting birding is *after* the spring migration!

Ospreys were reported from all four regions as late as the last week of May, but there was only one known nesting attempt by the species in the State. One pair nested and laid eggs at Reelfoot Lake within sight of the new Airpark Motel. In June the nest was abandoned and the pair was seen to start construction on a new nest nearby. Broken egg shells were found in the first nest and the second nest was never completed.

Bald Eagles were seen in the Central Plateau and Basin and in the Ridge and Valley Regions in June, but nothing is known of their activities here during the period and it may be assumed that they probably came here as wandering birds after the earlier nesting season in more southern areas (Florida?). A Marsh Hawk was found as late as 29 May in the Western Coastal Plain.

There were many sightings of late shorebirds in all Regions, but they were especially noteworthy because of the numbers of individuals and the diversity of species represented in the Central Plateau and Basin and the Ridge and Valley Regions. The Western Coastal Plain reported a Spotted Sandpiper in mid-June and for the third consecutive year there were summer records of Upland Sandpipers at the Nashville airport making the latter a most interesting problem. A Common Snipe was found in July in a marsh in Chattanooga and a Northern Phalarope was recorded in the Tri-cities area.

Tree Swallows nested successfully in the Western Coastal Plain and were found in July in the Eastern Mt. Region. The last area also reported Pine Siskins on Roan Mt. from May through July and Red Crossbills in the Smokies in May and June and on Roan Mt. in July. Additional unusual records include: a Lesser Scaup and a Black Tern in the Western Coastal Plain in June and several new sites for the Painted Bunting in that region; two colonies of Black-crowned Night Herons nesting near Nashville, a Wood Stork in Stewart County, a Chestnut-sided Warbler in Nashville in June, a Black-throated Blue Warbler at Fall Creek Falls State Park in June (nesting???), a Lark Sparrow whose attempt to nest was plowed under, and several locations for Willow Flycatchers all in the Central Plateau and Basin Region; in the Eastern Ridge and Valley Region there was a nesting Pied-billed Grebe, Willow Flycatcher nests, a Rose-breasted Grosbeak on Lookout Mountain in late June, and Bachman's Sparrows in Roane County; Willow Flycatcher nests were also reported from the Eastern Mountain Region.

Perhaps the most exciting record for the summer comes from Roan Mountain for it may prove to add a new nesting species to the State List in the near future. Magnolia Warblers, at least three singing males, were located there in late June and July in the edges of the spruce-fir stands. The birds appeared to be territorial, but the searchers could find no evidence of actual nesting. Perhaps next year with greater efforts and some luck this colorful migratory species will become Tennessee's newest nesting bird.

This particular *Season* is filled with truly striking information and good birding challenges for the next nesting season. Your *Migrant* staff encourages you to add your observations to all future reports.

WESTERN COASTAL PLAIN REGION—The nesting season in West Tennessee was marked by a complete run of the Breeding Bird Surveys. Lauderdale County was selected as the Foray County for 1975 and those observations and data will appear later in a special article and the following information does not reflect the sightings made in Lauderdale Co.

The Osprey Nest at Reelfoot in May indicated that the two Osprey were incubating eggs, however two weeks later the pair were seen building another nest.

Scaup-Bunting: Lesser Scaup: 6 June (1 male) Robco Lake (BBC, LC). Marsh Hawk: 29 May (1 female) H, NWR (JL). Osprey: 22 May (1) H, DRU (JL). Black Tern: 15 June (1 adult) H, DRU (MLB, EH, BJ). *GOLDEN PLOVER:* 5 July (1 full breeding plumage) Miss. R. bar, SW Lake Co. (MLB, DJ). Spotted Sandpiper: 15 June (1) H, DRU (MLB), 4 July (1) Miss. R. Lauderdale Co. (MLB, DJ), 5 July (1) Island and (1) mainland, Lake Co. Tree Swallow: 15 June (2 adults, 4 young) H, DRU (MLB, EH, BJ). Black-and-white Warbler: 16 June (1) SFSP (BBC). Worm-eating Warbler: 16 June (1) SFSP (BBC), 22 July (1) Hatchie R. Bottoms, TN Hwy. 100, 3 mi. W. of Toone (EC). *PAINTED BUNTING:* May-June, found at four sites in NW area of city of M and at 2 other sites, including the 1974 site, June and July, Covington, TN. (AS, MLB).

Locations: Robco Lake—SW Memphis, H, NWR—Hatchie River, National Wildlife Refuge, H, DRU—Hustburg, Duck River Unit, Tennessee National Wildlife Refuge, SFSP—Shelby Forest State Park, M—Memphis.

Observers: BBC—Ben B. Coffey, Jr., LC—Lula Coffey, JL—Jerald Ledbetter, MLB—Mike L. Bierly, EH—Ernest Holzhausen, BJ—Bill Jones, DJ—Daniel Jacobson, EC—Mrs. Ed Carpenter, AS—Alice Smith.

Martha Waldron, 1626 Yorkshire Drive, Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Loon-Tern:* Common Loon: 18 May (1) Coleman Lake (Lee Kramer); 8 June (1) OHL (BJ); 13 July 31 July (1-2) Percy Priest (MLB, GJ, MLM). Little Blue Heron: Mid-July (20-25) CCNWR (Samuel Barton); 5 reports NA. Cattle Egret: 22 May (12) NA (Dot and George Woodring); 7-10 June (2) G (DC, PC, BF, SF). Great Egret: 19 July (6) CL (Miriam Weinstein). *BLACK-CROWNED NIGHT HERON:* 22 June (16 nests, 30 young) OHL (BF, SF); 31 May (40-50 nests) BH (MLB); 13 July (10 ad., 50 imm.) BH (MLB, GJ); 12 July (40, mostly imm.) BV (GJ); 8 July (65) G (DC, PC). Yellow-crowned Night Heron: 7 June (2) Lawrence Co. (Lloyd Clayton, MDW); 22 July (1 imm.) BV (KAG, MLB). Least Bittern: 1 June (1) GP (DRJ, GB). American Bittern: 1 June (1) GP (DRJ, GB). *WOOD STORK:* 25 May (1) S (Michael Dinsmore). Blue-winged Teal: 7 June (2) G (DC, BF, SF); 8 July (1) G (DC, PC). Ring-necked Duck: 7 June (1) G (DC, BF, SF); 10-15 June (2-1 M, 1F) G (DC, PC). Black Vulture: 5-22 July (10-92 feeding on dead fish at farm pond) G (PC). *BALD EAGLE:* 17-18 May (1 imm.) CL (MLB, RJM); 8 June (1) S (BJ). Osprey: 31 May (1) OHL (BF, SF). American Coot: 13 July (1) Wilson Co. (MLB, GJ). Semipalmated Plover: 11 June (1) GSP (DC, PC). *UPLAND SANDPIPER:* 10 July (1) NA, Airport (MLM); later 2 present thru period. Greater Yellowlegs: 23 July (1) GSP (DC, PC, BF, SF). Lesser Yellowlegs: 6 July (1) GSP (DC, PC). White-rumped Sandpiper: 31 May (25) CCNWR (James and Richard Holt); 10, 11, 12 June (10, 32, 11); 3-6 July (4-7), all GSP (DC, PC). Baird's Sandpiper: 1, 4 June (3) GSP (DC, PC). Least Sandpiper: 25 May (118), 12 June (1), all GSP (DC, PC). Stilt Sandpiper: 6, 23 July (1) GSP; 15, 23 July (1) G (DC, PC, BF, SF). Semipalmated Sandpiper: 8 July (15) GSP, and (4) G (DC, PC). Western Sandpiper: 22-31 July (1-12) G, GSP (DC, PC). *WILSON'S PHALAROPE:* 11 July (1) GSP, 22 July (1) G (DC, PC). Herring Gull: 26-31 May (1) OHL (BF, SF). Forester's Tern: 3 July (2) OHL (BF).

Cuckoo-Sparrow: Black-billed Cuckoo: 30 May (1) NA (KAG). Whip-poor-will: 12 May, nest found, 17 May, 2 young, BS (KAG). Red-headed Woodpecker: 7 June (nest, 4 newly-hatched young) FP (MDW). *WILLOW FLYCATCHER:* 18 May - 7 June (1) CL (MPS); 20 May (2) BV (KAG); 31 May (1) Shelby Bottoms, NA (MLB); 22 June (3) BV (MLB); 22 June (1) ACM (MLB). Olive-sided Flycatcher: 22 May (1) Radnor Lake (MLB). Tree Swallow: 1 June (1) ACM (MLB, David Vogt). Bank Swallow: 12 July (2) ACM (RJM). Bewick's Wren: 1 June (5) UHBBS (MDW); 7 June (nest, 5 newly-hatched young, 2 eggs) FP (MDW). Long-billed Marsh Wren: 26 May (5) CL (MLB). Short-billed Marsh Wren: 17 May (2) CL (MLB, RJM); 26 May (1) CL (MLB). *SWAINSON'S THRUSH:* 1 June (1) NA (Ann Nichols). *SWAINSON'S WARBLER*: bird reported last period still present 12 July (MPS). *BLACK-THROATED BLUE WARBLER:* 3 June (1, seen and heard) Fall Creek Falls State Park (MCW). *CHESTNUT-SIDED WARBLER:* 11 June (1) NA (John Ellis). Hooded Warbler: 27 July (nest, 3 downy young) BS (KAG). Dickcissel: 8 June (4) GBBS (DRJ). Savannah Sparrow: 26 May (2) CL (MLB). Grasshopper Sparrow: 1 June (1) G (3) UHBBS (MDW); 8 June (8) GBBS (DRJ). *SHARP-TAILED SPARROW:* 17 May (2) CL (MLB, RJM). *LARK SPARROW:* 1 June (3 birds, 1 building nest, 8 June, nest plowed up) Viola (DRJ); 7 June (1) FP (MDW). White-throated Sparrow: 1 June (1) Smith Co. (BJ). Lincoln's Sparrow: 18 May (2) CL (MLB). Swamp Sparrow: 18 May (2) CL (MLB). Song Sparrow: June-July (1-2) McMinnville, Woodbury (MCW).

Locations: ACM—Ashland City Marsh; BH—Bordeaux Heronry; BS—Basin Springs; BV—Buena Vista; CCNWR—Cross Creeks NWR; CL—Cheatham Lake; FP—Five Points; G—Gallatin; GBBS—Glen Breed Bird Survey; GP—Goose Pond; GSP—Gallatin Steam Plant; NA—Nashville Area; OHL—Old Hickory Lake; S—Stewart Co.; UHBBS—Union Hill Breeding Survey, Macon County.

Observers: GB—Gary Bayne; MLB—Michael Bierly; DC—Dot Crawford; PC—Paul Crawford; BF—Bill Fintel; SF—Sally Fintel; KAG—Katherine Goodpasture; GJ—Greg Jackson; DRJ—Daniel Jacobson; BJ—Bill Jones; MLM—Margaret Mann; RJM—Rocky Milburn; MPS—Pat Stallings; MCW—Mary Wood; MDW—Morris Williams.

Morris D. Williams, Dept. of Zoology, Univ. of Tenn., Knoxville 37916.

EASTERN RIDGE AND VALLEY REGION—Interesting June records include Rose-breasted Grosbeaks and a pair of Red-breasted Mergansers. A Common Snipe was seen at Amnicola Marsh in early July. Knoxville reported Bald Eagles, a Common Gallinule, and Bachman's Sparrows. Probably the most unusual bird of the season was a Northern Phalarope at Austin Springs.

Since 1960 special efforts have been made to observe the nesting attempts of the Osprey in the Chattanooga area. This is the first year since then that no evidence of a nesting attempt has been found. More time will be spent searching for nests next year.

Loon-Hawk: Common Loon: 17 May (3) SB (LD). *PIED-BILLED GREBE:* 30 June (1 adult and 1 young) AM (KLD); 12 July (2 adults and 3 young) Chickamauga, Ga. (KD). Little Blue Heron: 13 July (3, imm.) CL (Gary and Cynthia Muffly); 23 July (5, imm.) Poe Branch, Daisy (KD). Cattle Egret: 15-18 May (1) JCo (Carol Hall, Anne Koella, Stuart Nelson); 19 May (1) SB (KLD). Great Egret: 16 May (2) AS (SG, RL); 25 July (6) HRA (KLD). Black-crowned Night Heron: 31 July (1) NoL (JCH). Yellow-crowned Night Heron: throughout period (1, imm.) AS (GE). Least Bittern: 31 July (2) AM (DRJ). Blue-winged Teal: last 8 June (1) AS (GE, HF). American Wigeon: last 21 May (1) AS (GW, DL). Hooded Merganser: 19 May (1) Chickamauga Dam (DRJ). Red-breasted Merganser: 18, 24 June (pair, male believed unable to fly) Clinch River, Mile 66.7 (GM). Sharp-shinned Hawk: 7 July (1) JC (Jake Slonaker); 25 July (1) SB (KLD). *BALD EAGLE:* 23 May (1), 9 June (1) NoL (JCH). Osprey: last 30 May (1) AS (DL). American Kestrel: 19 June - end of period (1-2) CH (DRJ).

Rail-Phalarope: King Rail: 7 June (1) AM (DRJ). *COMMON GALLINULE:* 9 June (1) NoL (JCH). American Coot: 26 June (3) NL (DRJ). Semipalmated Plover: 19 May (3) JCo (TK). American Woodcock: 7 June, 12 July (1) AM (DRJ). *COMMON SNIPE:* 10 July (1) AM (GLB, DRJ). Spotted Sandpiper: 26 May (3) CL (JMC, JCH); 16 July (1) AM (GLB). Solitary Sandpiper: 7 July - end of period (1-7) SB, AM (KLD, DRJ). Greater Yellowlegs: 21 July (1) AM (KLD). Lesser Yellowlegs: 21 May (2) AS (DL); 10 July - end of period (1-5) AM (KLD, DRJ). *BAIRD'S SANDPIPER:* 19 May (1) JCo (TK). Least Sandpiper: 10 July - end of period (1-18) AM, HRA (KLD, DRJ). Dunlin: 19 May (1) JCo (TK). Semipalmated Sandpiper: last 8 June (44) AS (GE, HF, RL, DL); 25 July (1) AM (KLD). Western Sandpiper: 19 May (6) JCo (TK); 29 July (1) AM (DRJ). *NORTHERN PHALAROPE:* 16, 17 May (1) AS (MD, SG, DL).

Tern-Thrush: Common Tern: 17 May (2) SB (LD). Black Tern: 17 May (4) SB (LD). Barn Owl: 24, 28 June, 4 July (1) KCo (GM); 27 June (1) NoL (JCH); 7 June, 10 July (1) AM (DRJ); (nest with 3 young) JC (Barney Keefer, et al); 1 July (3 young, banded) SeV (BB, Lee Shafer Family, DRJ). Barred Owl: 27 June (3) NoL (JCH). *WILLOW FLYCATCHER:* one active nest, AS (Gary Foshie); three active nests, Kingsport (Gary Foshie); 23 May, 12 July (1) AM (KLD). Tree Swallow: 4 August (20) Norris (Frances Olson). House Wren: 12 pairs in K area (CPN, BS, et al). Short-billed Marsh Wren: 31 July (1) SB (KLD). Swainson's Thrush: last 24 May (1) K (JBO). Veery: 24 May (1) K (KMS).

Warblers-Sparrows: Swainson's Warbler: 26 May (1) CC (JMC, JCH). Blue-winged Warbler: 1, 8 June (1) Scott Co. (JMC); 11 July (1) LM (GLB). Tennessee Warbler: last 25 May (1) K (EF). Blackburnian Warbler: 19 May (1) LM (GLB). Bay-breasted Warbler: 19 May (1) LM (GLB). Blackpoll Warbler: 25 May (1) K (EF). *CONNECTICUT WARBLER:* 18 May (1, banded) SeV (BB); 19 May (1) Rock Springs, Ga. (Roger Woodruff, GLB, DRJ). Bobolink: 18 May (31) JCo (TK). Northern Oriole: 1 June (1) Scott Co. (JMC); 9 July (2) RCo (JMC). *ROSE-BREASTED GROSBEAK:* 28 June (1) LM (GLB); 30 June (1) K (BS). Dickcissel: 18 May, 3 June (1) JCo (TK). Grasshopper Sparrow: through season (1) JCo (TK); 6 June (2) Telford (MD, SG). *BACHMAN'S SPARROW:* 18-20 June (1-2) RCo (CPN); 6 July (1) Blount Co. (TK).

Locations: AM—Amnicola Marsh; AS—Austin Springs; CC—Campbell County; CH—Chattanooga; CL—Cove Lake; HRA—Hiwassee River Area; JC—Johnson City; JCo—Jefferson County; K—Knoxville; KCo—Knox County; LM—Lookout Mtn., GA; NL—Nickajack Lake; NoL—Norris Lake; RCo—Roane County; SB—Savannah Bay; SeV—Sequatchie Valley.

Observers: BB—Benton Basham; GLB—Gary L. Bayne; JMC—James M. Campbell; MD—Martha Dillenbeck; KLD—Ken and Lil Dubke; KD—Ken Dubke; LD—Lil Dubke; GE—Glen Eller; EF—Elizabeth French; HF—Harry Farthing; SG—Sally Goodin; JCH—J. C. Howell; DRJ—Daniel R. Jacobson; TK—Tony Koella; RL—Richard Lewis; DL—Dick Lura; GM—Gary Muffly;

CPN—Charles P. Nicholson; JBO—J. B. Owen; KMS—Ken and Mabel Sanders; BS—Boyd Sharp; GW—Gary Wallace.

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EASTERN MOUNTAIN REGION—The weather for the area was very hot and dry, which was an an extreme contrast from the previous period's very wet conditions. May's total rainfall was 5.50 inches with only 1.45 falling during the last half of the month. June's rainfall was almost 1 inch below the average, while July's rainfall total was the lowest in the past 15 years. We had 10 days with temperature over 90° which is very unusual for this area.

One very important observation coming from Roan Mountain this period! Three singing male *MAGNOLIA WARBLERS* (not known to nest in Tenn.) were found apparently on territory during early July. Although no nest could be located this find should prompt more thorough investigation next season. Are we really giving these out-of-the-way places within our area all the attention that is needed?

Loon-Swallows: Common Loon: last seen 20 May (1) Bri (Wallace Coffey and Diane Wilson). Bufflehead: last seen 24 May (2) WibL (RL). Black Vulture: 10 June (2) GSMNP (GJ, MB). Sharp-shinned Hawk: 30 May (1) and 4 July (1) IMG (SG). Cooper's Hawk: 23 May (1) IMG (SG); 4 June (1) RM (TMS). Broad-winged Hawk: 1 active nest on RM produced 2 young (TMS et al). Osprey: last seen 28 May (1) WatR (GE). Lesser Yellowlegs: very late date 8 June (1) St. Johns Pond (GE). Black-billed Cuckoo: period's only sighting 22 June (1) IMG (SG). Barred Owl: 1 June (1) and 15 July (1) IMG (SG); 8 June (1) GSMNP (GJ, MB); 11 July (2) RM (LRH, ES, GE). *WILLOW FLYCATCHER:* 2 active nests in Johnson County found on 28 June and 5 July (Gary Foshie). *OLIVE-SIDED FLYCATCHER:* 22 May (1) IMG (SG, MD); 8 June (1) GSMNP (GJ, MB). Tree Swallow: 7 July (1) RM (LRH, ES).

Chickadee-Sparrow: Black-capped Chickadee: 8 thru 11 June (2-7) GSMNP (GJ, MB). Brown Creeper: 9 June (2) GSMNP (GJ, MB). Prothonotary Warbler: first seen 21 May, last seen 3 July (1 pair) WatR (LRH, GE, GW, DL) no nest located. Swainson's Warbler: 19 May (1) Rock Creek (GW). *BREWSTER'S WARBLER:* 30 May (1) IMG (SG, MD). *MAGNOLIA WARBLER:* 30 June thru 14 July (at least 3 singing males) RM (LRH, ES, FWB, GE, RL, AS). Cerulean Warbler: 21 May (1) WatR (LRH, GW, DL); 9, 10 June (1) GSMNP (GJ, MB). Pine Warbler: 10 June (1 late) GSMNP (GJ, MB). Wilson's Warbler: 24 May (1) Bri (Anna Cantwell). Blue Grosbeak: 27 May (2) Eliz (John Martin); 14 June (1) WatR (GE). Pine Siskin: 30 May (3) ES; 13, 14 June (3-5) ES, TMS; 2 July (1) FWB, all on RM. Red Crossbill: 25 May (15) GSMNP (Larry Gates); 23 June (6-9) GSMNP (Katherine Goodpasture); 11 July (16) RM (LRH, GE); 14 July (12) RM (RL, AS). Grasshopper Sparrow: 17 May (2) near Eliz (LRH, GW, DL). Vesper Sparrow: 31 May (1) RM (ES); 21 June (2) Lake Phillip Nelson (FWB).

Locations: Bri—Bristol, Eliz—Elizabethton, GSMNP—Great Smoky Mtn. National Park, IMG—Iron Mtn. Gap, RM—Roan Mtn., WatR—Watauga River, WibL—Wilber Lake.

Observers: FWB—Fred Behrend, MB—Mike Bierly, MD—Martha Dillenbeck, GE—Glen Eller, SG—Sally Goodin, LRH—Lee Herndon, GJ—Greg Jackson, DL—Dick Lura, RL—Richard Lewis, AS—Alan Smith, ES—Ed Schell, TMS—Tommy and Maxie Swindell, GW—Gary Wallace.

Glen D. Eller, Route 3, Grandview Terrace, Elizabethton 37643.

BOOK REVIEWS

The third edition of BIRDS OF THE NASHVILLE AREA compiled by Henry E. Parmer was published in spring, 1975 and should be an invaluable reference for anyone interested in the birds of the Middle Tennessee area.

Incorporating meticulously kept records by Tennessee Ornithological Society members over a period of many years of reliable observation, the present volume has been updated to include further findings since the publication of the first two editions.

Since there is no book exclusively devoted to the birds of our state of Tennessee currently available, the information on the status of birds, their earliest arrival and latest departure dates, where seen and by whom, even in one area of the state, should be helpful to many birders. The booklet is available at $1.50 (plus 16¢ postage) to TOS members, $2 to non-members, Box 1301, Nashville, Tennessee 37203.

Carol M. Knauth

OCEAN WANDERERS/THE MIGRATORY SEA BIRDS OF THE WORLD. 1974. By R. M. Lockley. David & Charles, Newton Abbot, Devon, Great Britain; Stackpole Books, Harrisburg, Pa. 168 pp. $15.00.—This is a well written book that all bird enthusiasts can enjoy. The author discusses how sea birds have adapted to their demanding environment, gives a brief outline of their natural history and provides maps of their distribution. In addition to the specific coverage of the birds themselves, other topics deal with the evolution and adaptations of sea birds, their behavior, feeding grounds, navigational skills, and the effects of mankind. The book which is full of up-to-date information is well illustrated with eight pages of color photographs, 28 black and white photographs, 22 maps and numerous drawings by Robert Gillmor.

Gary O. Wallace

PREPARATION OF COPY FOR PUBLICATION

The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

MATERIAL: The subject matter should relate to some phase of Tennessee Ornithology. It should be original, factual, concise, scientifically accurate, and not submitted for publication elsewhere.

TITLE: The title should be concise, specific, and descriptive.

STYLE: Recent issues of THE MIGRANT should be used as a guide in the preparation of manuscripts. Where more detail is needed reference should be made to the *Style Manual for Biological Journals* available from the American Institute of Biological Sciences, 3900 Wisconsin Avenue N. W., Washington, D. C. 20016.

COPY: Manuscripts should be typed double spaced on 8½ x 11″ paper with adequate margins, for editorial notations, and should contain only entries intended for setting in type, except the serial page number. Tabular data should be entered on separate sheets with appropriate title and column headings. Photographs intended for reproduction should be sharp with good contrast on glossy white paper in black and white (not in color). Instructions to the editors should be given on a separate sheet. Weights and measurements should be in metric units. Dating should be in "continental" form (e.g., 7 March 1968).

NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and ROUND TABLE NOTES, and should conform to the A.O.U. Check-list 5th edition, 1957 and its Thirty-second Supplement. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

BIBLIOGRAPHY: When there are more than five references in an article, they should be placed at the end of the article, otherwise they should be appropriately included in the text.

SUMMARY: Articles of five or more pages in length should be summarized briefly, drawing attention to the main conclusions resulting from the work performed.

IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

REPRINTS: Reprints are available on request. Reprint requests should accompany article at the time of submission. Billing to authors will be through the state T.O.S. Treasurer.

Books for review and articles for publication should be submitted to the editor. Seasonal reports and items should be forwarded to the appropriate departmental editor whose name and address will be found on the inside front cover.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

MARCH, 1976
VOL. 47, NO. 1

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

Published By

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Annual dues, $4.00; Sustaining, $7.50; Life, $100.00; Student, $3.00; Family, $5.00; (chapters may collect additional fees to cover local expenses). Dues, contributions, and bequests are deductible from Federal income and estate taxes. Back numbers may be had from Dr. James T. Tanner, Rt. 28, Box 155, Knoxville, Tenn. 37920. Correspond with the Treasurer for subscriptions, memberships, and changes of address.

Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 47 MARCH, 1976 NO. 1

THE 1975 FORAY: LAUDERDALE COUNTY

Ben B. Coffey, Jr.

This was our first foray in a county where the status of the avifauna was fairly well known, especially for summer and winter. Located midway between Shelby County and Reelfoot Lake, possibly only four other West Tennessee counties have been worked more than Lauderdale. The data is weakest on transients and limiting dates on all migrants. Surprisingly, the two day's work, 24-25 May 1975, helped on this, producing a large list of late transients. Theoretically a summer project, the days usually set for the foray do not guarantee that borderline species are summer residents. Manpower and time do not allow much searching for nests; so, the writer prefers June dates, to establish summer status.

John James Audubon on his flat boat trip of 1820, landed on Island 33, opposite the First Chickasaw Bluff, 27 November (William H. Deadrick, *The Migrant* XI, (3):59-61). This bluff is just above Fulton and is now included in Fort Pillow State Park. Twenty-eight November 1820 was a rainy day, probably accounting for no bird notes. But he did mention thousands of Bank Swallow holes in the Second Chickasaw Bluff, which is in Tipton County. Some 121 years later, led by Albert F. Ganier, a group of Memphis birders visited these two bluffs, but found no Bank Swallows (*The Migrant* XII, (2):32-34). Other than enroute to Reelfoot Lake, probably the first visit by Memphis birders was to Open Lake, 26 November 1933. Albert F. Ganier and Albert Clebsch visited Open Lake, 18-19 June 1942 (*The Migrant* XIII, (2-3):34-35). A midwinter bird count published as "Dyersburg" (*The Migrant* XV, (4):69-73) was actually at Halls in Lauderdale County where the then Dyersburg AAF base was located. Capt. Burt L. Monroe, Sr. was stationed there (WWII), authoring five Round Table notes in 1944 and 1945 and submitting other information to Mr. Ganier and to the writer. There have been no resident observers.

The county area is 305,408 acres or 477 square miles. The county population is 20,271 (1970); that of Ripley, the county seat and largest town, about 5,000. A 1974 study shows 60.2% of areas in agriculture, 37.8% in forest.

The newly established Ft. Pillow State Park on the First Chickasaw Bluff embraces about 1700 acres; three miles east of it is the State Prison Farm of about 25,000 acres. The west half of Lauderdale County is in the Mississippi-Alluvial Plain, the east half in the Mississippi Embayment. Division is roughly along a bluff extending southwesterly from Dyer County and the Forked Deer

River. Within a mile of the Hatchie River which forms the county's southern boundary, the bluff curves westward to the state park—above the Mississippi River which forms the western boundary. Elevation rises from 220 feet to 520 feet above sea level. Open Lake (about 8,000 acres) is private and normally inaccessible; there are several "old river" lakes or "pockets." The Obion or Forked Deer River on the north, also has outlets thru old channels, Open Lake, bayous, and Cold Creek, into the Mississippi at the south and near the State Park bluff.

Two large commercial lumber stands or forests in the bottomlands are also wild game areas managed by the state. The holdings include some cottonwood plantations. On the rolling embayment area there are a few, very small, pine plantings. Hardwoods in this area are along some of the small streams and adjacent slopes and ravines, and on most of the bluff face; the Kudzu vine has taken over the latter at Tenn. Hwy. 19.

An appreciable factor for birds and birding, is the stage or level of the Mississippi River. No levees protect the bottomlands from the bordering rivers and interconnected channels. Very high water, the last two years, flooded the bottomlands. On 15 April of this year, Tenn. Hwy. 88 was just out of the water and we drove to the end; water was about 6 inches below the road and stretched for miles; the Memphis gauge read 36 feet. Another rise covered the highway again, later, and the west end was still under water, 1 May. Tenn. Hwy. 19 was partly covered. Tenn. Hwy. 87, going to the Bluff, is not subject, normally. On 6, 10, and 18 May, various sections of the roads could be travelled. On this Foray, one direct route was still blocked. The flooding of the bottomland woods probably affected the nesting of some species. For example, no Swainson's Warblers were found in such areas, where it was not uncommon as a summer resident in previous years. (This remained so, 12 June). The four listed plus four other sites of 23 April - 10 May, were in the bluff area.

On the other hand, the flooding provided feeding areas for a large number of herons, most of which nest near Burdette, Arkansas, about 10 miles north of the most favored temporary slough, located southwest of Golddust and shown on a 1931 map as "Fletcher Lake." Foray participants found large numbers of transient shorebirds there also. On 12 June, we found the slough dry and cultivated. Scattered small numbers of herons still crossed the river, more Cattle Egrets than Little Blue Herons, and more flights towards Open Lake.

Lauderdale County was probably selected because some of the Society's most active workers wanted to be turned loose in the Mississippi bottomlands. And at every chance, they were there, especially at the temporary slough or old bed of "Fletcher Lake." Gary and Brenda Wallace, Glen Eller, and Dick Lura even hitched a wild boat ride towards an island, to get a count on the White Pelicans. Yet, all assigned routes were covered—in the early morning—and lists kept and annotated so that I could eliminate practically all duplications and compile a list which gives a relative status for most of the summer birds and a more accurate count of the transients. Such a list cannot be compared with previous foray lists. There were no banding or nest husting projects or strip counts. Route logs and maps were prepared ahead of time for three counts patterned after the U. S. Fish and Wildlife Breeding Bird Counts and for 13 other routes for selective birding. The former were along the three major east-west highways; two starting in the bluff area, then westward, dropping down into the soy bean fields, slough, and Mississippi River bank area. The southernmost—from east of US51, thru the prison farm, and to the State Park. The other routes or circuits, 15 to 20 miles in length, were spaced in order to get a good sampling thruout the county. In addition, two units covered the state park on foot; and Lula and I boated Open Lake, and went by car from Tenn. Hwy. 19 to Barr and a circuit there. The Barr area had not been assigned since accessibility had been doubtful. Parts of Ripley were also covered. With only 26 participants, some routes were left for the second morning. The Wallaces, Leggetts, Coffeys, Ledbetter, and Graves volunteered for those "second" routes. Left undone were half of two routes and part of Ripley.

The three designated Breeding Bird Counts, "A, B, and C," each consisted of 50, 3-minute stops, 1/2 mile apart, thus being a 24.5 mile route. Species totals were, respectively 61, 57, and 59 and individuals, 837, 600, and 937. For the 73½ miles, 150 stops, the total was 78 species, 2,374 individuals. The seven leading species (in order: Common Grackle, Red-winged Blackbird, Indigo Bunting, House Sparrow, Cardinal, Mourning Dove, and Barn Swallow) constituted 53% of the total; the Grackle, 18.6%. Warblers comprised 6.8%; two species (Yellowthroat and Chat) totaled 4.2%. No vultures were seen; the only hawk was one Mississippi Kite. The data and log sheets and maps for these routes are being filed with the Curator, so that anyone can repeat these runs in a subsequent year, for comparison.

Some analysis was separately given above because those three counts were more rigid, statistically speaking. The remaining field work was more selective or random, although the objective was still to record all birds possible. The total results will now be considered: 123 species, about 12,165 individuals. The count on the ten most common species amounted to 50.8% of the total listed. If we eliminate transients and winter stragglers, this would be 53.5%. On this latter basis, these ten species and their percent were: Common Grackle (11.6), Indigo Bunting (8.1), Red-winged Blackbird (7.4), House Sparrow (5.1), Eastern Meadowlark (4.9), Cardinal (4.3), Barn Swallow (3.6), Brown-headed Cowbird (2.9), Mourning Dove (2.8), and Carolina Wren (2.8). The next species on the complete list was a transient, the Semipalmated Sandpiper. Then, in the following order: Mockingbird, Little Blue Heron, Starling, Common Yellowthroat, Tufted Titmouse, Yellow-breasted Chat, Chimney Swift, Bobwhite, Blue-gray Gnatcatcher, and White-eyed Vireo (each representing 2.5 to 1.5%).

Summer birds (99 species) represented 95.0% of the individuals listed, winter stragglers—0.7%, transient shorebirds—3.9%, pelicans and terns—0.3%, and other transients—0.1%. Listed in A.O.U. Check-List order, are, first, the summer birds. Seasonal status is based on previous field work here and nearby, and is arbitrary in a few cases. One "follow-up" day, 12 June, was insufficient to check all localities (not always known) of birds possibly extending their range. That morning was spent on foot in the state park and the afternoon along the river bank, for swallows. Most of the herons (3.2% of summering total) are evidently nesting in Arkansas, but are included since they spend much time feeding in our area. This depends on conditions and this season a favorite slough was dry in the first week of June, affecting the number and species to be seen. A previous effort to find a heronry in this area is mentioned in *The Migrant* (23:45). The list of summer birds includes: Great Blue Heron 1; Green Heron 9; Little Blue Heron 280; Cattle Egret 58; Great Egret 10; Snowy Egret 2; Black-crowned Night Heron 2; Yellow-crowned Night Heron 9; Glossy Ibis 3; Mallard 11; Wood Duck 33; Hooded Merganser 6; Turkey Vulture 3; Mississippi Kite 15; Red-tailed Hawk 7; Red-shouldered Hawk 1; Broad-winged Hawk 4; American Kestrel 5; Bobwhite 200; American Coot 3; Killdeer 88; Least Tern 11; Rock Dove 38; Mourning Dove 322; Yellow-billed Cuckoo 157; Great Horned Owl 1; Barred Owl 10; Chuck-will's-widow 9; Common Nighthawk 1; Chimney Swift 236; Ruby-throated Hummingbird 54; Belted Kingfisher 6; Common Flicker 18; Pileated Woodpecker 20; Red-bellied Woodpecker 138; Red-headed Woodpecker 24; Hairy Woodpecker 5; Downy Woodpecker 31; Eastern Kingbird 35; Great Crested Flycatcher 78; Eastern Phoebe 11; Acadian Flycatcher 98; Eastern Wood Pewee 70; Horned Lark 105; Bank Swallow 31; Rough-winged Swallow 8; Barn Swallow 416; Purple Martin 12; Blue Jay 135; Common Crow 95; Fish Crow 6; Carolina Chickadee 78; Tufted Titmouse 245; White-breasted Nuthatch 1; Bewick's Wren 4; Carolina Wren 322; Mockingbird 285; Gray Catbird 13; Brown Thrasher 53; American Robin 98; Wood Thrush 78; Eastern Bluebird 34; Blue-gray Gnatcatcher 195; Loggerhead Shrike 24; Starling 265; White-eyed Vireo 171; Yellow-throated Vireo 8; Red-eyed Vireo 97; Warbling Vireo 14; Prothonotary Warbler 121; Swainson's Warbler 4; Worm-eating Warbler 3; Northern Parula Warbler 82; Yellow Warbler 7; Cerulean Warbler 16; Yellow-throated Warbler 25; Louisiana Waterthrush 4; Kentucky Warbler 40; Common Yellowthroat 260; Yellow-breasted Chat 237; Hooded Warbler 12; American Redstart 93; House Sparrow 594; Eastern Meadowlark 560; Red-winged Blackbird 855; Orchard Oriole 98; Northern Oriole 40; Common Grackle 1,336; Brown-headed Cowbird 340; Summer Tanager 71; Cardinal 502; Blue Grosbeak 25; Indigo Bunting 934; Painted Bunting 1; Dickcissel 155; American Goldfinch 7; Rufous-sided Towhee 64; Chipping Sparrow 13; Field Sparrow 141.

GLOSSY IBIS—Evidently from the Burdette heronry. This species was first found near Luxora, Arkansas, where a specimen was collected about 1 June 1965 (1966, Earl L. Hanebrink and Richard Cochran, *The Auk* 83 (3): 4-74) and referred to *Plegadis falcinellus*. Most of that heronry later shifted to Burdette. On our foray the Dubkes and Leggetts listed three; later, two were found there by Ledbetter and Graves.

OWLS—Six Barred Owls on daytime plus four others heard on the night of 23 May when a Great Horned Owl was also heard.

CHUCK-WILL'S-WIDOW—One, at start of Count "B." A run was made, 21:28 to 22:55 hours, 23 May, along Tenn. 87 and into both entrances of the state park. Calm, full moon—often obscured by clouds; 30 stops: unaccountably only 8 heard calling. Two of these were also heard by our campers in the park. My runs for Whip-poor-wills are scheduled, each June, the time I prefer, to establish summer status. On 16 June we tried 1½ hours in a north central area of the county; not even one Chuck was heard. On 17 June we started closer to home and gave up before reaching this county. Favorable conditions, both evenings. It seems strange that none were heard calling. As a check, the following night we tried 70 miles farther south (Benton and Marshall Counties, Miss.) and found both Whips and Chucks common and calling well. On 21 June we tried Lauderdale County, again, 20:42 to 00:30 hours, Fultop-Glimp-Asbury-Hurricane Hill-Conner: 42 miles, 76 stops, 55 Chucks at 34 of the stops; favorable weather and moon. Much lower than Fayette-Henry Counties eastward. If a night run had been made over all foray daytime routes (omitting the bottomland), under similar conditions, I would estimate about 250 Chuck-will's-widows, placing the species about sixteenth in the list of the most common. In other Junes, also, we have tried for Whips, especially along a Dry Hill circuit, without luck. Our only county record is of a transient at Hurricane Hill Church, 10 April 1961.

The number of Ruby-throated Hummingbirds listed (54) is surprisingly high.

BANK SWALLOW—Colonies in the low bank of the Mississippi River have been checked since 1947. The Barr colony remains, smaller and split, with about 18 nest holes near original site and 32 holes, 500 yards downstream; 12 birds seen. The other 19 birds listed were seen near Ashport (GL, GJ); the colony was formerly near the old end of Tenn. 19. On 12 June in that area, we found ends of a few holes left by a bank cave-in of about 8 June, but upstream at two neighboring sites, 50 swallows and 60 holes. Incomplete holes not included. The Golddust colony was not located; part of bank has been rip-rapped with large rock.

BEWICK'S WREN—Three sites, all on East Side, center. Two spring, 1975 sites, produced none. SWAINSON'S WARBLER—Low count, see previous comments. WORM-EATING WARBLER—the Foray species. Included as a summer resident, based only on the finding of one 24 May (GE, DL), at same site as 18 May (BC, LC). In the state park we found one 6 May and Bierly reported one there 24 May; we did not hear one 12 June. Shafer had the third Foray bird, south of the park. On 16 June I watched a singer in Shelby Forest S. P., our first June record, after a 4-hour search of bluff areas there. A good migration in Overton Park, Memphis, thru 21 April 1975; with an almost daily check, a singing straggler appeared there, 23 May. However, as stated, I consider the species a summer resident, sparingly in the bluff area of Lauderdale. YELLOW WARBLER—on 4 routes, totaling 7; some probably late transients. Mike Bierly had two at the head of Ft. Pillow S. P. lake on 24 May; found at same spot 12 June (LC, BC), a surprise since they were 100 miles west of known breeding range. Formerly 110 miles northwest but now on Arkansas endangered species list. PAINTED BUNTING—one heard singing at Barr (BC, LC) was in immature or female plumage. First of the species for Lauderdale. A special 7-hour search, 24 May, along US51 highway and every accessible point of the I.C. Gulf R.R. right-of-way; none found. It is hoped that this can be done each summer. Members of the Foray were able to see a beautiful male along this R.R., north end of Covington, staked out by Alice Smith, being the first Tipton County record.

The second part of our list includes 21 transient species and three considered stragglers, all representing 5.0% of the total individuals recorded. The pelicans and terns constituted 0.3%, shorebirds 3.9%, other transients 0.1%, and the stragglers 0.7%. Considered stragglers were: Blue-winged Teal 12; Cedar Waxwing 75 (3 flocks); and 1 Song Sparrow (seen by Ken Leggett). The transients were: White Pelican 22; Semipalmated Plover 2; Black-bellied Plover 8; Spotted Sandpiper 2; White-rumped Sandpiper 2; Baird's Sandpiper 2; Least Sandpiper 138; Dunlin 2; Semipalmated Sandpiper 310; Western Sandpiper (BC, LC) 4; Forster's Tern (KD) 1; Common Tern 11; Black-billed Cuckoo 2; Olive-sided Flycatcher (MLB et) 1; Swainson's Thrush 1; Black-and-white Warbler (3 parties) 3; Chestnut-sided Warbler 1; Blackpoll Warbler 1; Prairie Warbler (GE, RL); Ovenbird 1; and Scarlet Tanager 5.

The White Pelicans were the first seen in this area for many years. They were resting on a Tennessee island and opposite a Tennessee towhead on the west side of the Mississippi River. Almost certainly an Arkansas record, also, on approach and departure. Apparently, only the enterprising Wallaces, Glen Eller, and Dick Lura saw them. The shorebirds were the usual late transients although concentrated more than usual. The Baird's Sandpipers were at 100 feet by Glen Eller, Dick Lura, and the Wallaces using 7-power binoculars and a 30-power telescope; good light. The large flock (250) of Semipalmated Sandpipers were reported by the Dubkes and Leggetts, et al; a flock of 58 at Hyde Creek pits (BC, LC).

BLACK-AND-WHITE WARBLER—Two June records in recent years in Shelby County but Overton Park transients this year on 20 and 23 May. There is a small chance the species may be a summer resident. PRAIRIE WARBLER—An uncommon summer resident about 50 miles to the east. OVENBIRD—The species was hard to find as a transient this spring in Lauderdale but common in migration in Memphis—each Overton Park trip thru 27 May 1975. Bluff area suitable but apparently nearest summer residents are up to 100 miles east. SCARLET TANAGER—as for the Ovenbird. This late migration—5 on 4 routes—puzzling since, while common at Memphis as a spring transient, it was not found there after 9 May. In Overton Park, none on ten trips, 12 to 23 May. Only 4 on a Reelfoot field day, 11 May. Sex would be of interest but not given except for one male. Nearest summer residents—about 100 miles east. Among the stragglers, small flocks of Cedar Waxwings are always present to the end of May. The Blue-winged Teal, primarily a transient but wintering in small numbers, is not known to summer here. The Song Sparrow is late; there have been a few not so late dates at Reelfoot and one at the River in Lake County (BC, LC) remained at least thru 28 June and 5 July 1975 (MLB).

A few comments on certain species missed. Black Vulture—10 May (1), 18 May (2); none on other 1975 trips. Tree Swallow—We've always wanted to work Open Lake for this species. Thru the courtesy of Mr. Charles Richardson and the loan of his motor boat, Lula and I made a 2½-hour circuit of the lake, but did not find this species. Ganier and Clebsch reported three here, 19 June 1942. Grasshopper Sparrow—only one found pre-foray—a mile SE of Henning, 18 May. The wheat on the field was cut shortly before the foray. A special search at many likely pastures and fields, produced none.

The Memphis Chapter committee of Noreen Smith, Martha Waldron, and, at Covington, Alice Smith, did a fine job preparing marked maps and copies of route logs, making arrangements and advising on lodging and meals, and for the Saturday night supper and other assemblies. Lula and Ben Coffey laid out the routes in the field, becoming familiar with the entire county. Jerald Ledbetter (Jackson) joined them on one trip. Other Memphis participants were Mary Davant, Jimmy Graves, Arlo I. Smith, Gerald Papachristou, and Patricia Papachristou. From the other areas: Michael L. Bierly and David Vogt (Nashville), Ken and Lil Dubke (Ooltewah), Helenhill Dove (Johnson City), Glen Eller and Richard Lura (Elizabethton), David and Robbie Hassler (Byrdstown), Ray Jordan (Cookeville), W. Lee Shafer (Whitewell), Brenda and Gary Wallace (Elizabethton), and Kenneth and Betty Feltner Leggett (Louisville, Kentucky).

Congratulations and thanks are due all for intensive work in the field and cooperation in recording results and areas worked, in a manner facilitating a meaningful summary. And we, each and every one enjoyed being together again.

672 N. Belvedere, Memphis 38107.

TENTH ANNUAL
SYMPOSIUM AND FALL MEETING

15-16 OCTOBER, 1976

FALL CREEK FALLS STATE PARK

PIKEVILLE, TENNESSEE 37367

This will be at the height of the fall color season so room reservations should be made early. A block of rooms have been set aside for our group, but members must reserve these on an individual basis. For reservations write Fall Creek Falls Inn, Fall Creek Falls State Park, Pikeville, Tennessee, or call 615 - 881-3241. Be sure to state that you are with the TOS. For further details contact George R. Mayfield, Jr., Maury County Hospital, Columbia, Tenn. 38401 or Kenneth H. Dubke, Rt. 1, Box 134-D, Ooltewah, Tenn. 37363.

NASHVILLE TELEVISION TOWER CASUALTIES, 1975

Katherine A. Goodpasture

The television tower casualty-count for 1975 at WSM and WNGE Nashville, Tennessee was more than three times those of the past two years. Daily coverage of both towers from 1 September through 31 October except 10 October at WNGE and adding 1, 2 and 7 November at WNGE returned 513 dead birds of 53 species—435 of 45 species from WSM and 78 of 32 species at WNGE. In addition Michael Bierly, coordinator for WNGE, looked for casualties at WNGE weekly from the last week of July through August without finding any.

Throughout the fall the weather was mild, often overcast and even-tempered, appearing to let migrants move at a leisurely pace. Moving fronts were of low intensity and field observers generally reported seeing more migrants than for many years. Thrice times the number of casualties does not mean triple the amount of "bad weather." The timing of a change in wind direction as well as the intensity of a drop in temperature must be factors in an analysis of weather related to tower casualties as well as complex fortuities. On only three dates does the number of casualties call for comment.

Collection of 38 dead birds at WSM and 9 at WNGE on 7 September followed 2 or 3 days with overcast skies. A mild cold front passed at 16:00 on 5 September; no casualties were recovered on 6 September. The 47 casualties were found on the second morning after a change in wind direction and a drop in temperature.

Between 15 and 16 October the wind changed from south to northeast about midnight and it began to rain about 07:00 on the sixteenth. Thirty-nine fresh casualties, plus 2 old ones, were collected at WSM on the morning of the sixteenth.

The highest toll of the season was a fall of 256 birds at WSM and 27 at WNGE between 25 and 26 October. According to the U. S. Weather Bureau rain began at 06:00 on 25 October, and wind changed from south to north at 06:27. Rain continued irregularly during the day and night. There was no record of fog. Rain ended about 08:00 on the 26th and the wind was from the northeast. An employee at WSM did not notice casualties at midnight. One may ask whether birds migrating 25-26 October overtook a slow moving front and ran into trouble over Nashville between midnight and dawn.

Cats continue to be noticeable predators on dead birds at WNGE. Twenty-two species of warblers accounted for two-thirds of the total number of casualties. Highest counts were 98 Tennessee Warblers, 71 Ovenbirds and 48 Bay-breasted Warblers. Three late migration dates were gleaned from the casualty records: 1 Red-eyed Vireo, 27 October, was one day later; 2 Philadelphia Vireos, 26 October, were 2 days later and 1 Blackpoll Warbler, 26 October, was 10 days later than previous late fall records for the Nashville area.

TABLE I

TELEVISION TOWER CASUALTIES, FALL 1975, NASHVILLE, TENNESSEE

Species	WSM	WNGE	TOTAL	
Virginia Rail	0	1	1	Oct. 6(1̲)
Yel-billed Cuckoo	2	0	2	Oct. 1(1); 28(1̲)
Woodpecker, sp.	0	2	2	Oct. 3(1̲); 13(1̲)
Yel-bel. Flycatcher	0	1	1	Sept. 7(1̲)
Red-br. Nuthatch	1	0	1	Oct. 26(1)
House Wren	1	1	2	Oct. 16(1); 26(1̲)
Winter Wren	1	0	1	Oct. 17(1)
Long-bil. Marsh Wren	4	1	5	Oct. 26(3,1̲); 27(1)
Short-bil. Marsh Wren	1	0	1	Oct. 26(1)
Brown Creeper	3	0	3	Oct. 16(2); 26(1)
Gray Catbird	1	2	3	Sept. 30(1̲); Oct. 26(1,1̲)
Brown Thrasher	1	0	1	Oct. 11(1)
Wood Thrush	1	0	1	Oct. 16(1)
Hermit Thrush	1	0	1	Oct. 16(1)
Swainson's Thrush	2	1	3	Sept. 26(1); 27(1); Oct. 19(1̲)
Gray-chkd. Thrush	1	1	2	Sept. 20(1̲); 26(1)
Thrush, sp.	0	1	1	Oct. 3(1̲)
Golden-cr. Kinglet	9	0	9	Oct. 26(8); 27(1)
Ruby-cr. Kinglet	19	1	20	Oct. 19(1̲); 23(1*); 24(1); 26(15); 27(2)
Kinglet, sp.	0	1	1	Oct. 26(1̲)
White-eyed Vireo	1	0	1	Oct. 26(1)
Yellow-thro. Vireo	0	1	1	Sept. 30(1̲)
Solitary Vireo	7	0	7	Oct. 19(1); 26(6)
Red-eyed Vireo	15	2	17	Sept. 5(1); 6(1); 7(4.2̲); 11(1); 15(1); 17(2); Oct. 16(1); 26(3); 27(1)
Philadelphia Vireo	4	1	5	Oct. 1(1); 12(1̲); 16(1); 26(2)
Black-and-white Warbler	16	2	18	Sept. 5(2); 7(6); 9(1); 17(1); 18(1); 19(2̲); Oct. 16(1); 26(4)
Blue-winged Warbler	0	2	2	Sept. 7(1̲); 16(1̲)
Tennessee Warbler	89	9	98	Sept. 7(3,1̲); 9(1); 15(1); 16(1); 17(1); 28 (1); Oct. 1(1); 7(3); 12(1̲); 16(13); 17(1); Oct. 19(1,2̲); 26(55, 5̲); 27(7)
Orange-cr. Warbler	1	1	2	Oct. 16(1); 26(1̲)
Nashville Warbler	6	2	8	Sept. 7(1); 15(2); 16(1); Oct. 19(1̲); Oct. 26 (1,1̲); 30(1)
No. Parula Warbler	1	0	1	Oct. 26(1)
Yellow Warbler	1	0	1	Sept. 7(1)
Magnolia Warbler	29	2	31	Sept. 7(3); 9(1); 16(1); 17(1); Oct. 16(1); 19(2̲); 21(1); 26(17); 27(4)
Cape May Warbler	1	0	1	Oct. 26(1)
Yellow-rump. Warbler	20	3	23	Oct. 16(1); 26(18, 3̲); 27(1)
Blk-th-green Warbler	27	2	29	Oct. 19(1̲); 26(22, 1̲); 27(5)
Cerulean Warbler	1	0	1	Sept. 7(1)
Blackburnian Warbler	7	1	8	Sept. 7(1,1̲); 17(1); Oct. 23(1*); 26(3); 27(1)
Chestn-sided Warbler	11	2	13	Sept. 7(1); 20(1̲); 28(1̲); Oct. 16(2); 26(7); Oct. 27(1)
Bay-br. Warbler	45	3	48	Oct. 7(2); 14(1̲); 16(5); 19(1); 26(31,2̲); Oct. 27(6)
Blackpoll Warbler	0	1	1	Oct. 26(1̲)
Ovenbird	59	12	71	Sept. 7(13, 2̲); 11(1); 12(1); 15(2); 23(3); Sept. 27(1); Oct. 2(1̲); 7(1̲); 16(1); 19(2̲); Oct. 26(31, 4̲); 27(6); Nov. 1(2̲*)
No. Waterthrush	0	1	1	Sept. 5(1̲)
Kentucky Warbler	3	0	3	Sept. 5(1); 6(1); 7(1)
Com. Yellowthroat	13	0	13	Sept. 6(1); Oct. 16(2); 26(9); 27(1)
Yellow-br. Chat	1	1	2	Sept. 7(1,1̲)
Am. Redstart	2	4	6	Sept. 7(2); 22(1̲); 28(1̲); Oct. 3(2̲)
Warbler, sp.	0	2	2	Oct. 19(1̲); 28(1̲)
Scarlet Tanager	1	0	1	Oct. 16(1)
Summer Tanager	0	1	1	Oct. 26(1̲)
Rose-br. Grosbeak	4	3	7	Oct. 7(1); 9(1̲); 16(2); 19(1̲); 26(1,1̲)
Indigo Bunting	14	0	14	Oct. 16(1); 24(1); 26(10); 27(2)
Grasshopper Sparrow	1	0	1	Oct. 26(1)
Dark-eyed Junco	1	1	2	Oct. 26(1,1̲)
White-throated Sparrow	1	4	5	OCt. 6(1); 26(2̲); 31(1̲); Nov. 7(1̲)
Swamp Sparrow	1	0	1	Oct. 16(1)
Unidentified	4	2	6	Oct. 8(1̲); 13(1); 15(1̲); 16(2*); 26(1)
TOTAL	435	78	513	

Numbers in () indicate birds collected that day. Underlined numbers indicate birds collected at WNGE, not underlined collected at WSM. Asterisk indicates an obviously old specimen.

Accompanying TABLE I records in detail the collections of 1975 casualties. The coordinated efforts of the following people make this a continuing study: Frances Abernathy, Ann Arnett, Sue Bell, Michael Bierly, coordinator for WNGE, Milbrey Dugger, Clara Fentress, William Finch, Katherine Goodpasture, Portia Macmillan, Marjorie and Oscar Patrick, Ann Tarbell and Miriam Weinstein.

3407 Hopkins Lane, Nashville 37215.

GREAT BLUE HERON COLOR MARKING PROJECT

The Ohio Division of Wildlife, cooperating with the Ohio Cooperative Wildlife Research Unit, Ohio State University, is carrying out a 5 year project on Great Blue Herons (*Ardea herodias*) as an environmental indicator. A number of birds have been wing-marked with white patagial tags and they are soliciting assistance from cooperators to report sightings of these herons. If one of these birds is sighted it is requested the observer note date, time and exact location or nearest landmark. Additional information such as length of time the bird is in the vicinity would be helpful.

Along with the above information send name, address and telephone number of the observer to Crane Creek Wildlife Experiment Station, 13229 West State, Route 2, Oak Harbor, Ohio 43449.

ATTEND THE 1976 TOS FORAY

28-31 May

SHADY VALLEY — JOHNSON COUNTY

The Bristol Chapter of TOS will serve as host. Headquarters will be located at the Shady Valley Elementary School with registration beginning at 5 p.m. on Friday, 28 May. A group dinner is scheduled for 6:30 on Saturday, 29 May. For additional information contact J. Wallace Coffey, 521 Cedar Valley Road, Bristol 37620; phone 764-3958; or Mrs. Tom Wilson, 205 Robin Road, Bristol 37620; phone 764-0283.

MINUTES OF THE 1975 SYMPOSIUM AND FALL MEETING

The Ninth Annual Symposium and Fall Meeting of the Tennessee Ornithological Society was held 10-12 October 1975, at Holiday Hills Resort, Crossville, Tennessee.

The Board of Directors Meeting (11 October) was called to order by the President, O. Ray Jordan, with 38 members or proxies present. Bill Senter moved that the minutes of the 1975 Spring Meeting be approved as printed in June, 1975 issue of *The Migrant*. The motion, seconded by Noreen Smith, carried.

REPORT OF OFFICERS:

There were no reports from the Vice President or the Secretary.

The Treasurer presented no detailed financial report. He requested that chapters begin collecting 1976 dues prior to January 1.

EDITOR'S REPORT:

Dr. Gary Wallace, Editor of *The Migrant*, reported that the September issue was at the printers and should be received by members sometime in November. He urged members to submit material suitable for publication. He also announced a new, non-profit mailing permit which reduced the cost of postage for *The Migrant* by approximately 66 percent. This will, however, result in slower mail delivery. It may now take approximately a week or ten days for *The Migrant* to be received after it has been mailed. Publication costs have not changed, but it was pointed out that 1,000 copies of the journal are printed and T.O.S. has suffered a loss in membership. A need for recruitment of more members was pointed out.

The Editor of "The Season," Dr. Fred Alsop, urged reporters to send in records promptly after each field trip. Prompt submission of these reports will result in more accurate and current published records.

The State Count Compiler, Morris Williams, suggested that it is a waste of the Compiler's time as well as that of readers, for multiple or duplicate records to be printed; for example, reporting in "The Season" those records also included in the counts. It was brought out in discussion that some members feel that "Round Table" information and noteworthy birds should always be included in "The Season." Mr. Williams did not agree, but no definite action was taken on the matter.

Mr. Williams also requested that reporters summarize their material before submission. He stated that it is time consuming to attempt a compilation of reports consisting of an unsummarized list of sightings covering several months.

REPORTS OF STANDING COMMITTEES:

There were no reports from the Finance, Conservation or Certification Committees.

FORAY: David Hassler reported, in Robbie Hassler's absence, that the 1976 Foray will be held in Johnson rather than Fentress County, as had previously been announced. The change was made because of the current construction program in Pickett State Park and because the Bristol Chapter had so requested. The Foray will be held on Memorial Day weekend with Mountain City, Tennessee, as the headquarters. A suggestion was made to include studies of other forms (wildflowers, trees, salamanders, etc.), as well as birds. Interested persons from adjoining states will be invited. The Virginia Society has been contacted and Carolina birders will be invited.

REPORTS OF SPECIAL COMMITTEES:

EMBLEMS/PATCHES/AVIFAUNA: Lil Dubke suggested the purchase of T.O.S. decals and shoulder patches for use as "stocking stuffers," gifts and other uses. She reported that 505 patches have been sold. The sale of only a few more will allow the Society to "break even" on this project. She also has copies of *Avifauna* #3 for sale. These booklets have been deposited at sites such as the Cumberland Museum in Nashville, the Smoky Mountain National Park, Cumberland Gap and other locations. Suggestions for other appropriate locations for selling this pamphlet were solicited.

NON-GAME PROGRAM: Ken Dubke, T.O.S. Coordinator, Non-Game Program, reported that he attended all called meetings of this division of the Tennessee Wildlife Resources Agency. He further stated that Gary Myers, Assistant Director of TWRA, was expected to detail the progress of the Non-Game Program during the evening session. Five-dollar certificates may be purchased from TWRA to help support the work of the non-game program. This will enable parties with interests such as our own, along with hunters and anglers, to help maintain habitat, and support other conservation work. The money thus received will be used to obtain matching funds from the federal government. Ralph McDonald's print of the bluebird is offered, for a limited time, as incentive for the sale of these certificates. Applications may be obtained from TWRA. John Sellars advised that the Lebanon Chapter had made a group donation to this project and suggested that other chapters might like to participate in a similar manner.

DIXON MERRITT MEMORIAL: Bill Senter called attention to the invitation, as printed in *The Migrant,* to the breakfast on 18 October at Cedars of Lebanon State Park when the Merritt Memorial will be officially opened. There will be a bird walk preceding the breakfast and an examination of various areas within the park and forest system suitable for a proposed self-guided nature trail. This will be the first of a series of such field trips, with others scheduled for the spring. Prices on plaques have been requested from a firm in Ogden, Utah. The text for two plaques were submitted, but quotations have not been received. One of these texts quotes Mr. Merritt's pelican poem; the other is a brief biographical sketch of Mr. Merritt. It is anticipated that the price per plaque will be within the $120 previously allotted by T.O.S.

OLD BUSINESS:

DIRECTOR AT LARGE QUESTION: At the 1975 Spring Meeting (Columbia, Tennessee), discussion ensued regarding the deletion of "Director at Large" status from the T.O.S. Constitution. No formal action was taken, but it was agreed that the subject would be resumed at this meeting. After a lengthy discussion, the motion was made by Martha Waldron to notify all chapters that deletion of the "Director at Large" status will be voted on at the 1976 Spring Meeting. The motion, seconded by Bill Senter, carried. It was pointed out that the Constitution requires a written notice to be furnished each chapter at least 30 days prior to any meeting in which a constitutional change is to be considered.

T.O.S. BROCHURES: Ken Dubke advised that, at one time, descriptive T.O.S. brochures were available but that this supply is now exhausted. A discussion followed regarding the advantages of a new brochure which would include a brief history of T.O.S., description of *The Migrant,* location of chapters, and dues information. Dubke moved that authorization be given to have such brochures up-dated and printed, the cost not to exceed $100. Lois Herndon seconded the motion, and it carried.

ANNOUNCEMENTS:

1976 SPRING MEETING: Lil Dubke extended an invitation from the Chattanooga Chapter to host the 1976 Spring Meeting, to be held 30 April - 1 and 2 May. She stated that arrangements had been made with a motel for reasonable rates, good food and a meeting room. This, and other nearby motels, will accommodate the 300+ people expected. Their spring count will be taken at that time. More information will be forthcoming.

THE NATURE CONSERVANCY: Bill Jones, President of the Upper Cumberland Chapter (Cookeville), reported that he attended a July meeting in Chattanooga regarding the possibility of a Tennessee Chapter of The Nature Conservancy. The Nature Conservancy is a national organization dedicated to preserving land in its natural state through acquisition or private donations. The present trend is towards statewide chapters. Considerable work is being done in regard to the question of how a statewide chapter, providing adequate representation for all parts of Tennessee, can be accomplished. He is presently working on by-laws to be presented at the next organizational meeting (7 November) in Chattanooga. At that meeting, there will be speakers, a business meeting, and field trips the next day. Bill described the work of The Nature Conservancy in other areas and stated that the organization has not been strong in Tennessee due to a lack of organization and membership. Anyone wishing to receive further information may request it from Ken Dubke or Bill Jones.

Gary Wallace indicated that he would show slides during the evening session pertaining to the 13 September dinner at Elizabethton honoring Dr. Lee Herndon and Mr. Fred Behrend.

The meeting adjourned at 15:00.

LOUISE JACKSON, Secretary

ROUND TABLE NOTES

KING EIDER RECORDED IN TENNESSEE—For some time the existence of a specimen of King Eider (*Somateria spectabilis*) for Tennessee has been known, but no formal presentation has been made. This note is an accumulation of the facts surrounding the record as they are known.

A King Eider was killed by a hunter during the hunting season in the Opossum Branch area of Woods Reservoir between 1964 and 1967, exact date undeterminable, but during the time the hunting season on Canvasback (*Aythya valisineria*) was closed. Bill Armbrecht, A.E.D.C. Area Manager, Game and Fish Commission (now Tennessee Wildlife Resources Agency) was at the checking station the day the specimen was shot and questioned its legality since it seemed to him something like a Canvasback which was closed that season. At Mr. Armbrecht's request the hunter freely gave the bird to him. Upon consulting a waterbird identification guide, he determined that it appeared to be an eider and it was placed in the back of his open bed truck for a time.

The specimen then was taken by Calvin Barstow, at that time biologist, Game and Fish Commission and put in his freezer for several years. In July 1970, Michael Bierly asked Mr. Barstow about the bird and he said that he would be glad to give it to him provided that Michael guarantee that the specimen would be placed in a public collection. On 24 September 1970 the bird was presented at the Nashville Chapter TOS meeting by Jay Gore, biologist, Game and Fish Commission.

Arrangements were made with John Ogden, then research biologist, Everglades National Park, to have the specimen made into a skin. The bird was carried by Ann Tarbell in the spring of 1971 to Miami, Florida during a vacation trip and left for Mr. Ogden at Everglades National Park. The bird was prepared into a study skin and sent for tentative disposition to Amelia Laskey who had a permit to keep skins.

The tag reads in part: Total length 480 mm; wing cord 250 mm; tail 71 mm; culmen 32 mm; some fat; weight 1103.56 mg; sex female, follicle minute. Prepared by C. Senna 2 April 1971.

It was decided that the skin should be sent to the Smithsonian Institution for verification. In July 1972, Richard Zusi, Curator, Division of Birds, Smithsonian Institution, verified the specimen as *Somateria spectabilis*. In accordance with Mr. Barstow's request, the skin was placed in the bird collection of the Cumberland Museum and Science Center (formerly Children's Museum) in Nashville, specimen number AV-267. An agreement was signed by Michael Bierly with the museum stating that if the museum decided to dispose of the specimen that the Tennessee Ornithological Society would be notified for disposition. Copies of this agreement were sent to Gary Wallace and Fred Alsop, III.

Acknowledgment of assistance in the preservation of this record are extended to Ken Dubke, Henry Parmer, Jon DeVore and to those mentioned above.

This account substantiates the first record of a King Eider for Tennessee.

Michael Lee Bierly, 2415 Crestmoor Road, Nashville 37215.

SECOND HOUSE FINCH AT NASHVILLE—On the afternoon of 13 April 1975 a "strange" bird came to the Droll Yankee sunflower seed feeder which hangs on a bracket one foot from my kitchen window. This feeder plus a couple of others were literally over-run during the winter and early spring with Purple Finches (*Carpodacus purpureus*). The newcomer also perched about three feet from the window in a dogwood tree (*Cornus florida*) affording me an excellent view. This bird was slimmer and grayer than the Purple Finches, with streaked underparts, *no white facial pattern* such as characterizes the female or immature Purple Finch, and its tail was almost straight across at the tip, just barely notched. The thing that clinched the identification for me was the chirping of the bird which sounded almost identical to the House Sparrows (*Passer domesticus*), of which I have many! This similarity in call notes is mentioned in *Birds of North America* by Robbins, et al. In addition to this book, I consulted *A Field Guide to the Birds* by Peterson, and *The Audubon Illustrated Handbook of American Birds* by Reilly, and was convinced that this bird was a female House Finch (*Carpodacus mexicanus*).

On 6 March 1975 I had seen a male House Finch at the home of Sally and William Fintel in Old Hickory and I had previously seen this species in Colorado and New Hampshire.

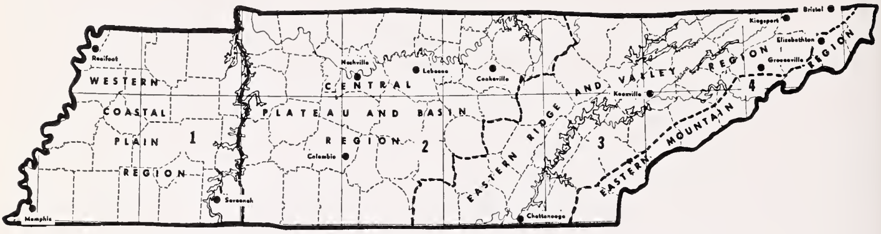
I saw this particular bird at my house, briefly, on 1 March 1975, but did not identify it at the time, chiefly because I was not expecting a House Finch in my yard; however, the reason I know it was the same bird is that it was easily distinguished by a small, white cap! I suppose this could be considered partial albinism. I have been told that an injury sometimes causes the feathers to grow back white. If anyone has another explanation for the unusual white cap, I would like to hear about it.

Pat Stallings, 406 North 17 Street, Nashville 37206.

Correction: The Migrant 46:71, 1975. From the Winter Season Report of the Central Plateau and Basin Region reads as follows: Golden Eagle: 6 wintered in Cannon Co. (FB); 7 Dec. injured bird captured near Giles and Marshall County lines (fide MLB); 22 Nov. (2) B (DH, RH); 8 Feb. (15) Dale Hollow Lake (fide DH, RH). It should read: Golden Eagle: 6 wintered in Cannon Co. (FB); 7 Dec. injured bird captured near Giles and Marshall County lines (fide MLB). Bald Eagle: Center Hill and CL each had 1 wintering (fide MLB); 22 Nov. (2) B (DH, RH); 8 Feb. (15) Dale Hollow Lake (fide DH, RH).

THE SEASON

Dr. Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

FALL MIGRATION: 1 August - 31 October

There are many interesting observations during this season, but one, the first state record for Harcourt's Storm Petrel, *Oceanodroma castro* (also called Band-rumped or Madeiran Storm Petrel) is outstanding among the rest. There are few inland North American records for this species. Three birds were found dead and/or dying in Great Smoky Mountains National Park shortly after Hurricane Eloise passed through the Southern States in late September. Details will be published later. A white-rumped storm petrel of unknown species was also seen during the same period in the Collegedale area of the Eastern Ridge and Valley Region.

There are a multitude of shorebird records from all regions across the State. They are especially numerous in the Central Plateau and Basin Region where a Whimbrel was observed, and in the Eastern Ridge and Valley Region where a Marbled Godwit was seen.

Many birds of uncommon occurrence was also reported. Perhaps the most noteworthy of these are the Red-necked Grebe and Eared Grebe, Oldsquaw, Surf Scoter, and Purple Gallinule from the Central Plateau and Basin Region. A Common Gallinule, two Glossy Ibis, and large numbers of Cattle Egrets were found in the Eastern Ridge and Valley Region. Both eagle species and a good sampling of other raptorial birds lent an exciting air to field trips for Tennesseee birders. Notable diurnal birds of prey included a nesting Mississippi Kite in the Western Coastal Plain, a Merlin in the Central Plateau and Basin, and a Goshawk spotted on 4 October that was present through the end of the reporting period in the Eastern Mountain Region.

Several contributors reported not only a good variety of migrating species, but generous numbers of individuals as well. Early and late records of arrival and departure were broken across the State (note especially the Central Plateau and Basin Region). A Yellow-bellied Sapsucker was reported the 25 of August in the Western Coastal Plain. A Wood Thrush stayed in the Eastern Ridge and Valley into the first week of November and a Blackburnian Warbler was seen in the Central Plateau and Basin on 12 November. An immature White-throated Sparrow was reported to have "summered" in the latter region.

There are many widely scattered records of numerous Red-breasted Nuthatches being present by the end of the reporting period, and the legion of sightings of Pine Siskins, Purple Finches, and Evening Grosbeaks all indicate this may be a very good "northern finch" winter in Tennessee.

This *Season* contains many interesting, exciting, and valuable records of Tennessee birds. We share the pleasure and sport of the birders who spent some moments with each bird involved in these citations, but of greater importance, we commend each of you listed for sharing your records of your "finds" with *The Migrant* and your fellow birders in this permanent way.

WESTERN COASTAL PLAIN REGION—The warbler migration through the Memphis area was highlighted by large numbers of individuals (35) that presented themselves at several homemade fountains in members' yards. Mr. and Mrs. Dinkelspiel, for example, consistently had the largest number of warblers for several days. Their fountain not only attracted warblers, but many other migrants were seen as well. The weather was not unusual for the season.

Loon-Gull: Common Loon: 16 Oct. (1) McKellar Lake (BM). Cattle Egret: 20 Sept. (130) Ripley, TN (AS). Black-crowned Night Heron: 31 Aug., 8 Sept. (26), (34) Hustburg, DRU (JL, DW). Pintail: 8 Sept. (1) Hustburg, DRU (JL). *MISSISSIPPI KITE:* 27 Aug. (3 imm.) seen flying near nest located in high cottonwood near edge of ball field, Dyersburg, TN (VL). Sora Rail: 31 Aug. (4) Hustburg, DRU (JL, DW). Black-bellied Plover: 8 Sept. (2) Hustburg, DRU (JL). Upland Sandpiper: 8 Sept. (1) Hustburg, DRU (JL). White-rumped Sandpiper: 31 Aug. (3) Big Sandy Unit (JL, DW). Sanderling: 31 Aug. (1) Pace Pt (JL, DW). Ring-billed Gull: 31 Aug. (1) Pace Pt. (JL, DW).

Sapsucker-Sparrow: YELLOW-BELLIED SAPSUCKER: 25 Aug. (1 imm.) Audubon Park (RJ), 2 Oct. (1a) Audubon Park (RJ), 4 Oct. (1 imm.) M (Near same area) (RJ) 6 Oct. (2) Coffey Grounds (BC). *YELLOW-BELLIED FLYCATCHER:* 24 Aug. (1) R (EC, BC). Red-breasted Nuthatch: 9 Sept. (1) 19 Sept. - 1 Oct. (1) R (EC). Short-billed Marsh Wren: 31 Aug. (2) Big Sandy, DRU (8) Hustburg, DRU (JL, DW). Winter Wren: 4 Oct. (1) Coffey Grounds (LC). Tennessee Warbler: 30 Aug. (1) Jackson, TN (JL), 29 Oct. (1) M (HD). Parula Warbler: 17 Oct. (1) M (HD). Swainson's Warbler: 16 Aug. (1) Birdsong Boat Dock (MPS). Bay-breasted Warbler: 5, 6 Oct. (12) M (HD). Connecticut Warbler: 6 Oct. (1) M (HD). Ovenbird: 17 Oct. (1) M (HD). Indigo Bunting: 26 Oct. (2) Shelby Forest SP (HSD, HD). Dark-eyed Junco: 14 Oct. (1) G (MS). White-throated Sparrow: 8 Oct. (1) G (MS).

Locations: Audubon Park—city park in the center of Memphis; Big Sandy Unit, Tennessee Nat. Wildlife Refuge; Birdsong boat dock—Benton Co.; Coffey Grounds—home of Ben and Lula Coffey, Memphis; G—Germantown; Hustburg, DRU—Hustburg, TN Duck River Unit of the Tenn. Nat. Wildlife Refuge; M—Memphis; McKellar Lake—SE Shelby Co.; Pace PT—Big Sandy Unit of the Tenn. Nat. Wildlife Refuge; R—Raleigh, NE Shelby Co.; Shelby Forest—Shelby Forest State Park, NW Shelby Co.

Observers: EC—Mrs. Ed Carpenter; BC—Ben B. Coffey, Jr.; LC—Lula Coffey; HD—Helen Dinkelspiel; RJ—Rusty Jones; VL—Virginia Lamb; JL—

Jerald Ledbetter; BM—Bob McGowan; MS—Mary Seahorn; AS—Alice Smith; MPS—M. P. Stallings.

Martha Waldron, 1626 Yorkshire Drive, Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—This report contains about 20 records which are either the earliest or latest published fall records for those 20 species in this region. In addition several species are recorded in high numbers. Most of these records are from the Nashville area. I believe that the appearance of the third edition of *Birds of the Nashville Area* explains in part this increase in new records. Many observers were probably in the field trying to find birds that were arriving from the north a little earlier or lingering here a little later than indicated in this new publication. Participants in the Nashville area fall count recorded a remarkably high total of 158 species on 27 and 28 September 1975; this is almost as high as the totals on the spring counts in the same area.

Grebe-Falcon: RED-NECKED GREBE: 7 Sept. (2) NA (MPS). Horned Grebe: 12 Aug. (1) OHL (SF, WF). *EARED GREBE:* 4-9 Oct. (1) RL (MLB). Double-crested Cormorant: 31 Aug. - 1 Sept. (1) GSP (DC, PC); 2 Nov. (1) CHL (BJ, BV). Green Heron: 29 Oct. (1) W (FB). Little Blue Heron: 1 Aug. (1) MP (MLM). Cattle Egret: 24 Aug. (15) M (AH, Frank Hill); 9 Oct. (15) LC (W. E. Dickey *fide* LC); 5 other records. Yellow-crowned Night Heron: 22 Aug. (2) W (FB). Snow Goose: 28 Sept. (1) NA (FC); 24-31 Oct. (1) G (Leland Scott): 25 Oct. (1) CL (RJM). Pintail: 28-29 Aug. (1) G (DC, PC, Diane Wilson). *OLDSQUAW:* 31 Oct. (1) RL (MLB). *SURF SCOTER:* 18 Oct. (1) OHL (SF, WF); 26 Oct. (1) CHL (BJ, BV); 29 Oct. (2) RL (MLB). Ruddy Duck: 13 Oct. (1) WR (KD, LD); 19 Oct. (6) RL (MLB). Sharp-shinned Hawk: 8 Sept. (1) G (DC, PC); 28 Sept. (2) W (FB); 13 Oct. (3) B (DH, RH). Rough-legged Hawk: 14 Oct. (1) W (FB). *GOLDEN EAGLE:* 19 Oct. (2) W (FB). *BALD EAGLE:* 30 Oct. (1) B (DH, RH). Osprey: 26 records during period. *MERLIN:* 14 Sept. (1) 2JS (HR, JR).

Crane-Tern: Sandhill Crane: 17 Oct. (3) C (Timmy Smith); 14 Nov. (45) B (DH, RH). Virginia Rail: 28 Sept. (1) BV (MLB); 6 Oct. (1, C) NA (Bill and Lucy Finch). Sora: 11 records during period. *PURPLE GALLINULE:* 5 Oct. (1, C) NA (MLB). American Coot: 13 Oct. (14,000), 28 Oct. (16,400) WR (KD, LD). Semipalmated Plover: 7 Sept. (55) CCNWR (JH). Killdeer: 1 Sept. (104) GSP (DC, PC). American Golden Plover: 28 Sept. (1) BV (MLB); 18-19 Oct. (1) OHL (SF, WF). Black-bellied Plover: 6 Aug. (1), 24 Sept. (16) GSP (DC, PC); 25 Oct. - 1 Nov. (1) BV (MLB, Larry Gates). *WHIMBREL:* 26 Sept. (1) GSP (DC, PC, CP). Upland Sandpiper: 31 Aug. (2) NA (MLM). White-rumped Sandpiper: 7 Sept. (1) CCNWR (JH). Dunlin: 20 Sept. (1), 16 Oct. (56) GSP (DC, PC). dowitcher sp.: 7 Sept. (2) CCNWR (JH): 16 Oct. (4), 26 Oct. (1) GSP (DC, PC). Stilt Sandpiper: 5 Aug. (3) G (DC, PC). *BUFF-BREASTED SANDPIPER:* 7 Sept. (2) CCNWR (JH); 7 Sept. (1) GSP (DC, PC). Sanderling: 19-29 Sept. (1-3) GSP (DC, PC). *AMERICAN AVOCET:* 20 Sept. (1), 25-26 Sept. (9) GSP (DC, PC). *WILSON'S PHALAROPE:* 1 Aug. (1) MP

(MLM); 7 Sept. (2) CCNWR (JH). Herring Gull: 26 Sept. (1) GSP (DC, PC, CP); 26 Sept. (1) OHL (SF, WF). Bonaparte's Gull: 17 Oct. (7) OHL (SF, WF). Forster's Tern: 27 Sept. (44) NA (FC). Caspian Tern: 25 Sept. (22) GSP (DC, PC, Bessie Hagan); 17 other records during period. Black Tern: 11 Aug. (20) CL (RJM); 6 other records.

Cuckoo-Thrush: Yellow-billed Cuckoo: 25 Oct. (1) LC (LC). Black-billed Cuckoo: 27 Sept. (1) LC (LC); 1 Oct. (1, C) NA (Betty Richards); 5 Oct. (1, B) 2JS (JR). Barn Owl: 11 Oct. (1) CL (RJM). Whip-poor-will: 20 Sept. (1) 2JS (JR). *YELLOW-BELLIED FLYCATCHER:* 17 Aug. (1, B) 2JS (HR, JR); 7 Sept. (1, C) NA (MLB); 7 Sept., 4 Oct. (1, B) BS (KAG). Acadian Flycatcher: 28 Sept. (1, B) 2JS (JR). Willow Flycatcher: 1 Aug. (2, "whitting") MP (MLM). Least Flycatcher: 27 Sept. (1, B) 2JS (JR). Eastern Wood Pewee: 26 Oct. (1) NA (MPS). Olive-sided Flycatcher: 27 Sept. (2) NA (FC). Tree Swallow: 18 Oct. (48) G (DC, PC). *BANK SWALLOW:* 12 *July* (2) Ashland City Marsh (RJM), this noteworthy early record was received too late for inclusion in the summer season report. House Wren: 7 records from scattered localities. Bewick's Wren: 21 Sept. (1, B) 2JS (HR, JR); 19 Oct. (1) Rock Island (MPS). Long-billed Marsh Wren: 27, 28 Sept. (18) NA (FC). Short-billed Marsh Wren: 27, 28 Sept. (12) NA (FC). Hermit Thrush: 28 Sept. (1) NA (FC).

Vireo-Sparrow: PHILADELPHIA VIREO: 13 Sept. (1) 2JS (HR, JR); 13 Sept. (2) RL (MLB); 20 Sept. (1) WC (EH, BJ); 27, 28 Sept. (7) NA (FC). Warbling Vireo: 30 Aug. (1, B) 2JS (HR, JR); 1 Sept. (1) NA (MLB). *SWAINSON'S WARBLER:* 7 Sept. (1) SB (MPS). Orange-crowned Warbler: 29 Sept. (1) W (FB); 1 Oct. (1, C) NA (KAG); 28 Oct. (1) NA (Ann Nichols). Blackpoll Warbler: 26 Oct. (1, C) NA (MLB). Pine Warbler: throughout period (6) LC (LC). Palm Warbler: 13 Aug. (2) RL (MLB). Mourning Warbler: 13 Sept. (1) BS (KAG); 17 Sept. (1) W (FB); 27 Sept. (1) NA (FC). Bobolink: 13 Sept. (150) CL (RJM). Northern Oriole: 5 Oct. (1) RL (MLB). Summer Tanager: 7 Nov. (1) C (EH). Purple Finch: 20 Sept. (1) WC (EH); 24 Sept. (1) OHL (SF, WF). *EVENING GROSBEAK:* 29 Oct. (2) Crossville (Adele West); 31 Oct. (6) M (AH); 5-6 Nov. (25) LC (LC); 9 Nov. (25) Col (*fide* OH); 13 Nov. (75) Land Between Lakes (Clifton Whitehead). *LARK SPARROW:* 30 Aug. (1), 4 Oct. (1) SB (MPS); 1 Sept. (1) Bledsoe Creek State Park, G (DC, PC). White-crowned Sparrow: 27 Sept. (1) 2JS (HR, JR). *WHITE-THROATED SPARROW:* an immature spent the summer, W (FB).

Additional symbols used: B = Banded; C = Casualty.

Locations: B—Byrdstown; BS—Basin Springs; BV—Buena Vista; C—Cookeville; Col—Columbia; CL—Cheatham Lake; CHL—Center Hill Lake; CCNWR—Cross Creeks Nat. Wildl. Refuge; G—Gallatin; GSP—Gallatin Steam Plant; LC—Lawrence Co.; M—Murfreesboro; MP—Monsanto Ponds; NA—Nashville Area; OHL—Old Hickory Lake; RL—Radnor Lake; SB—Shelby Bottoms; 2JS—Two Jays Sanctuary; W—Woodbury; WC—White Co.; WR—Woods Reservoir.

Observers: MLB—Mike Bierly; FB—Frances Bryson; LC—Lloyd Clayton; FC—Fall Count Participants; DC—Dot Crawford; PC—Paul Crawford; KD—

Ken Dubke; LD—Lil Dubke; SF—Sally Fintel; WF—William Fintel; KAG—Katherine Goodpasture; DH—Dave Hassler; RH—Robbie Hassler; AH—Anne Hettish, JH—James Holt; EH—Ernst Holzhausen; OH—Olin Hotchkiss; BJ—Bill Jones; MLM—Margaret Mann; RJM—Rocky Milburn; CP—Chap Percival; HR—Heather Riggins; JR—John Riggins; MPS—Pat Stallings; BV—Bill Varney.

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EASTERN RIDGE AND VALLEY REGION—A *PETREL* at Collegedale the day after Hurricane Eloise was a first for the region. The *MARBLED GODWIT* observed at Norris Lake constitutes the fourth state record.

The draw-down on Chickamauga Lake produced excellent shortbird habitat until the first of September. A Buff-breasted Sandpiper and a Ruddy Turnstone were unusual sightings.

Two *GLOSSY IBIS* and a *COMMON GALLINULE* were the first fall records for the Chattanooga area. Terns staged a good migration in all parts of the region. Numerous records of the Cattle Egret were reported, including a flock of 100 in Sequatchie Valley. A banding station at Daus, run from 7 September to the end of the period, netted interesting records of several passerine species.

All indicators point to a bumper invasion of boreal species. Before the end of the period Red-breasted Nuthatches, Evening Grosbeaks, Purple Finches, and Pine Siskins had been reported.

Loon-Ibis: Common Loon: 4 Oct. (1) BL (MD). Horned Grebe: 27 Sept. (1) NL (KP). Pied-billed Grebe: 2 Oct. (150) NL (BB). *PETREL SPECIES:* (forked tail, white rump): 24 Sept. (1) Collegedale (Mrs. Nat Halverson *fide* DRJ). Great Blue Heron: 7 Sept. (26) DL (TK, KTOS). Green Heron: through end of period (1) AM (KLD, DRJ). Little Blue Heron: 1-25 Aug. (1-2) HRA (KLD); 1 Sept. (2) Daisy (KLD, DRJ); 6 Sept. (1) SB (KLD). *CATTLE EGRET:* 22 Aug. (11) HRA (KLD); 19 Sept. (7) KCo (Mrs. Jake Kreis); 21 Sept. (1) Concord (Mrs. John Craig); 22 Sept. (22) SeV (Flavius Barker *fide* DRJ); 28 Sept. (22) HRA (GLB); 7 Oct. (11) SeV (LSF); 23 Oct. (flock of 100) SeV (David Smith *fide* LS). Great Egret: through 28 Sept. (4-7 regular) HRA (KLD, GLB, DRJ); 2 Sept. (1) AS (DL); 6 Oct. (1) HRA (KLD). Black-crowned Night Heron: 10 Aug. - 4 Oct. (1-4 irregular) AS (ETOS). Yellow-crowned Night Heron: 2 Aug. - 4 Oct. (1, imm.) AS (ETOS); 28 Sept. (1, imm.) KCo (GM). *GLOSSY IBIS:* 31 Aug. (2 adults) HRA (DRJ).

Goose-Crane: Canada Goose: 25 Sept. (5) CL (FO). Black Duck: 6 Sept. (2) HRA (KLD). Gadwall: 6 Oct. (2) HRA (KLD). Pintail: 21 Sept. (1) AS (GE, LRH, SG, JS). Green-winged Teal: 31 Aug. (1) AM (DRJ). Blue-winged Teal: first, 24 Aug. (2) HRA (LD); 21 Sept. (200) AS (GE, LRH, SG, JS). American Wigeon: 21 Sept. (1) AS (GE, LRH). Northern Shoveler: 14 Sept. (1) SeV (DRJ). Wood Duck: 17 Aug. (max. 147) HRA (KLD). Turkey Vulture: 4 Oct. (37) AS (GE, HF, DL, PR). Black Vulture: 13 Sept. (20) SeV (LSF). Sharp-shinned Hawk: 8 Aug. (1) KCo (Maurice Grigsby);

8 Sept. (1) Da (LSF); 17 Sept. (1) Lamar (DL); 23 Oct. (1) KCo (JGH). Cooper's Hawk: 26 Sept. (1) KCo (JGH); 26 Oct. (1) JC (ES). Red-tailed Hawk: 16 Nov. (9 adults, 2 imm.) migrating, passed S.W. in a period of 40 minutes; Church Hill (FJA). *BALD EAGLE:* 4 Aug. (1 adult) N. Chickamauga Creek (Brainerd Cooper *fide* KD). Osprey: 13 Aug. (2) Cherokee Lake (Howard Chitwood, Dan Marion); 28 Oct. (1) TRG (KLD). Sandhill Crane: 29 Sept. (5) Blount Co. (George Wood).

Rail-Shorebirds: King Rail: 30 Oct. (1) AlM (MDW, BS, AS). Virginia Rail: 19 Sept. (1) AS (GE); 30 Oct. (3) AlM (MDW, BS, AS). Sora: 2 Sept. (1) AM (KLD, DRJ); 30, 31 Oct. (1-2) PSF (JGH). *COMMON GALLINULE:* 27 Oct. (1, imm.) HRA (KLD). Semipalmated Plover: 15 Aug. (2) SB (DRJ, JBB); 7 Sept. (2) DL (TK, KTOS). American Golden Plover: 26 Oct. (3) SB (LD); 29 Oct. (1) SB (KLD). Black-bellied Plover: 30 Aug. - 2 Sept. (1) SB (KLD); 7 Sept. (1) DL (TK, KTOS); 27, 29 Oct. (1) SB (KLD). *RUDDY TURNSTONE:* 15 Aug. (1) SB (LD, DRJ, JBB). Common Snipe: 15 Aug. (1) HRA (KLD). Greater Yellowlegs: throughout period (1-2) AS (ETOS); (1-18) HRA, SB (KLD). Lesser Yellowlegs: 10 Aug. (156, largest number for Chatt. area) SB (LD). Pectoral Sandpiper: 24 Aug. (2) AS (GE, LRH); regular through period (1-37) HRA, SB (KLD, GLB, DRJ). White-rumped Sandpiper: 24 Aug. (1) HRA (GLB). Least Sandpiper: regular through period (1-42) HRA, SB (KLD, DRJ). Dunlin: first 7 Oct. (36) HRA, SB (KLD); 18 Oct. (6) AS (DL). Short-billed Dowitcher: 15 Aug. (6) HRA (KLD); 5 Sept. (1) HRA (KLD). *LONG-BILLED DOWITCHER:* 8 Aug. (1) SB (LD); 7 Oct. (1) HRA (KLD). Stilt Sandpiper: 15 Aug. (1) SB (DRJ, JBB); 23, 24 Aug. (2), 31 Aug. (1) AS (DL, LRH, GE, SG, MD); 26, 29 Aug. (1) HRA (KLD, DRJ, GLB). Semipalmated Sandpiper: 9 Aug. - 5 Sept. (1-22) HRA (KLD, DRJ). Western Sandpiper: 23 Aug. - 5 Sept. (1-2) HRA, SB (KLD); 31 Aug. (1) AS (SG, MD); 27 Oct. (3) HRA (KLD). *BUFF-BREASTED SANDPIPER:* 23-29 Aug. (1) HRA (KLD, et al). *MARBLED GODWIT:* 10 Sept. (1) Norris Lake (JCH). Sanderling: 15 Aug. (1) HRA (KLD); 30 Aug. (2) HRA (LSF); 22 Sept. - 4 Oct. (1-5) AS (ETOS).

Gull-Waxwing: Herring Gull: 7 Oct. (2) NL (DRJ). Ring-billed Gull: 7 Oct. (1) SB (KLD). Forster's Tern: 7 Sept. (2) AS (DL), (19) SB (KLD), (7) NL (DRJ); 5-8 Oct. (1) NL (LS). Common Tern: 10 Aug. (14) AS (DL); 7 Sept. (12) DL (TK, KTOS); 28 Sept. (1) SB (KLD); 4 Oct. (3) AS (GE, HF, PR, DL). Caspian Tern: 7 Sept. (2) DL (TK, KTOS); 21 Sept. (4) AS (GE, LRH, JS, SG); 25 Sept. (1) SB (KLD). Black Tern: 31 Aug. (11) NL (DRJ, LS); 7 Sept. (6), 14 Sept. (1) AS (DL, HD, MD, SG); 3 Aug. - 24 Sept. (1-16, sporadic) SB (KLD). Black-billed Cuckoo: 21 Sept. (1) WW (LMJ). Barn Owl: 11 Aug. (1, road kill) SeV (LS); 31 Aug., 2 Sept. (3) AM (DRJ, KLD). Common Nighthawk: 7 Sept. (210) SeV (LSF). Ruby-throated Hummingbird: 13 Sept. - 6 Oct. (42, banded) Da (BB). Eastern Kingbird: 15 Aug. (40) SB (JBB, DRJ). *YELLOW-BELLIED FLYCATCHER:* 5 Sept. (1, banded) JC (PR); 16 Sept. (1, banded), 26 Sept. (2, banded), 27 Sept. (1, banded) Da (BB). Acadian Flycatcher: 24, 25 Sept., 4, 5 Oct. (1, banded) Da (BB). Traill's Flycatcher: 25 Sept. (1, banded) Da (BB). Least Flycatcher: 25, 26 Sept. (1, banded) Da (BB). Tree Swallow: 18

Oct. (400) SeV (LSF). Bank Swallow: 30 Aug. (2) HRA (LSF). Rough-winged Swallow: 20 Oct. (2) KCo (JGH). Barn Swallow: 25 Oct. (1) SB (LD). Purple Martin: last 1 Sept. (3) SB (KLD). Red-breasted Nuthatch: first 19 Sept. (2) White Oak Mtn. (LD, DRJ); scattered reports to end of period. House Wren: 21 Sept. (1) LM (GLB); 14, 20 Oct. (1, banded) Da (BB). Bewick's Wren: 26 Sept. (1) SeV (BB). Long-billed Marsh Wren: 19 Oct. (1) AS (JS); 30 Oct. (1) AlM (MDW, BS, AS). Short-billed Marsh Wren: 1-12 Aug. (1) SB (KLD); 8 Oct. (1) Da (LS). Gray Catbird: last 18 Oct. (1, banded) Da (BB). Wood Thrush: last 13 Oct. (1) LM (GLB); 2 Nov. (1) Church Hill (FJA). Swainson's Thrush: 25 Oct. (1) K (Mabel Sanders). Water Pipit: 30 Oct. (32) KCo (JGH). Cedar Waxwing: 28 Oct. (300) Highland Mem. Cemetery, KCo (JGH).

Vireo-Sparrow: White-eyed Vireo: 28 Oct. (1, banded) Da (BB). Solitary Vireo: 11 Oct. (1) LM (GLB); 27 Oct. (2, banded) Da (BB). *PHILADELPHIA VIREO:* 17 Sept. (1) JC (MD); 27 Sept., 4, 5, Oct. (1, banded) Da (BB). Worm-eating Warbler: 24 Sept. (2, banded) Da (BB). Tennessee Warbler: 28 Oct. (10) KCo (JGH). Orange-crowned Warbler: 25 Sept., 28 Oct. (1) KCo (JGH); 20 Oct. (1, banded) Da (BB). Nashville Warbler: 30 Aug. (1) NL (DRJ); 28 Oct. (1) KCo (JGH). Magnolia Warbler: 30 Aug. (1) K (Mabel Sanders); 28 Oct. (3) KCo (JGH). Cape May Warbler: 5 Oct. (1) Da (DRJ); Black-throated Blue Warbler: 4 Oct. (1) LM (GLB). Cerulean Warbler: 4 Oct. (1) Telford (PR, DL). Chestnut-sided Warbler: 1 Sept. (1) Daisy (KLD, DRJ). Bay-breasted Warbler: 28 Oct. (3) KCo (JGH). Blackpoll Warbler: 18 Sept. (2, banded), 18 Oct. (1, banded) Da (BB). Northern Waterthrush: 31 Aug. (1) HRA (DRJ); 2 Oct. (3, banded) Da (BB). Wilson's Warbler: 4 Oct. (2) Erwin (RL, SG). Canada Warbler: 8 Aug. (1) Cumb. Mtn. State Park (GM); 20 Aug. (1) KCo (MDW). Bobolink: 23 Sept. (1) AS (MD, HD); 6 Oct. (15) HRA (KLD). Orchard Oriole: to 21 Aug. (1-4) SB (KLD). Northern Oriole: 20 Sept. (1) LM (GLB). Rusty Blackbird: 24, 25 Oct. (1) AS (LRH, JS). Scarlet Tanager: 24 Oct. (1) K (Edith Cress). Summer Tanager: 20 Oct. (1) KCo (JGH). Rose-breasted Grosbeak: 28 Oct. (1, banded) Da (BB). Ingido Bunting: 28 Oct. (1, banded) Da (BB). *EVENING GROSBEAK:* 31 Oct. (20) LM (GLB). Purple Finch: 20 Sept. (1) Dunlap Fire Tower (DRJ); 8 Oct. (1) KCo (JGH); 14 Oct. (1 female/imm.) and 21 Oct. (4 female? - 1 male), Church Hill (FJA). Pine Siskin: 25 Oct. (30) CL (BS). Savannah Sparrow: 19 Sept. (2) SB (LD, DRJ). Grasshopper Sparrow: 4 Oct. (1) Jonesboro (HD, JS); 24 Oct. (1) Telford (MD, HD). White-crowned Sparrow: 20 Oct. (10) KCo (JGH); 25 Oct. (8, banded) AS (ETOS). White-throated Sparrow: first, 2 Oct. (1) Da (BB). Lincoln's Sparrow: 5 Oct. (1) Da (DRJ); 13 Oct. (1) KCo (JGH); 13, 27 Oct. (1, banded) Da (BB); 25 Oct. (3, banded) AS (ETOS).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BL—Boone Lake; CL—Cove Lake; Da—Daus; DL—Douglas Lake; HRA—Hiwassee River Area; JC—Johnson City; K—Knoxville; KCo—Knox County; LM—Lookout Mtn., Ga.; NL—Nickajack Lake; PSF—U. T. Plant Science Farm; SB—Savannah Bay; SeV—Sequatchie Valley; TRG—Tennessee River Gorge; WW—Wildwood, Ga.

Observers: FJA—Fred Alsop; BB—Benton Basham; GLB—Gary L. Bayne; JBB—J. Branson Block; MD—Martha Dillenbeck; HD—Helenhill Dove; KLD—Ken and Lil Dubke; KD—Ken Dubke; LD—Lil Dubke; GE—Glen Eller; ETOS—Elizabethton TOS; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee Herndon; JGH—James G. Holt; JCH—J. C. Howell; DRJ—Daniel R. Jacobson; LMJ—Lemuel M. Jacobsen; KTOS—Knoxville TOS; TK—Tony Koella; RL—Richard Lewis; DL—Dick Lura; GM—Gary Muffly; FO—Frances Olson; KP—Kathy Phillips; PR—Pete Range; ES—Ed Schell; LS—Lee Shafer; LSF—Lee Shafer Family; BS—Boyd Sharp; JS—Jake Slonaker; AS—Alan Smith; MDW—Morris D. Williams.

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EASTERN MOUNTAIN REGION—This period has produced some excellent observations within the region. The three *HARCOURT'S STORM-PETREL'S* found dead or dying in the Great Smoky Mtns. Nat'l. Park due to the aftermath of hurricane Eloise are the first state record for this species. The Goshawk that was recorded over several weeks in Johnson County, was seen by many birders. A Peregrine Falcon was also reported. The tern migration thru the upper end of the area was somewhat unusual and surprising. Adding these records to the late stragglers and early winter arrivals made this one of the best Fall seasons in recent years.

Warmer than usual temperatures were noted in late August and early September, with about normal rainfall being recorded during the three month span. The first frost came in the Elizabethton area on October 3, but we had very few low readings during the period.

Loon-Falcon: Common Loon: first return 25 Oct. (2) WatL (LRH). *HARCOURTS STORM-PETREL:* 24, 25 and 26 Sept. (3 found dead) GSMNP (*fide* Morris Williams). Great Blue Heron: 20 Sept. (1) RC (GE, GW). Green Heron: last seen 18 Oct. (1) RC (LRH, ES). Great Egret: 18-20 Sept. (1) RC (LRH, ES). Canada Goose: 10 Oct. (16) Hunter (GW). Black Duck: first return 26 Oct. (3) WibL (GE). Northern Shoveler: 19 Oct. (2) WibL (LH). Ring-necked Duck (3) and Bufflehead (1) first return on 19 Oct. at WibL (LH). *GOSHAWK:* 4 Oct. thru end of period (1) RC (LRH, JM, LH). Sharp-shinned Hawk: 20 Sept. (2) HM (GE, GW); 27 Sept. (4) RM (GW, DL); 11 Oct. (1) RC (GE, RL). Cooper's Hawk: 28 Aug. (1) RM (ES); 20 Sept. (2) HM (GE, GW); 30 Oct. (1) Eliz. (GE). Marsh Hawk: 17 Aug. (2) RM (ES); 20 Sept. (1) HM (GE, GW); 9 Oct. (1) RM (ES). Osprey: 12 Sept. (1) WatL (Chan Robbins). *PEREGRINE FALCON:* 27 Sept. (1) RM (GW, DL).

Rail-Lark: Sora Rail: 5 Sept. (1 dead) HM (LRH). Semipalmated Plover: 28 Sept. (3) and 4 Oct. (1) RC (LRH, JM, ES). Greater Yellowlegs: 13 Oct. (1) RC (LRH, JM). Lesser Yellowlegs: 28 Aug. (1) RC (ES). Pectoral Sandpiper: 5 Sept. (1) and 18 Sept. (3) RC (LRH, ES). Western Sandpiper: 7 Aug. (1) and 18 Sept. (2) RC (LRH, ES). Sanderling: 28 Aug. thru 20 Sept. (2-8) RC (LRH, ES, GE, GW). Common Tern: 12 Sept. (75) WatL. (Chan Robbins); 28 Sept. (13) RC (DL, PR). Caspian Tern: 18 Sept. (5) RC (LRH, ES). Black Tern: 12 Sept. (45) WatL (Chan Robbins). Barn Owl:

19 Aug. (1) MC (RL). Barred Owl: 10 Sept. (1) HM (Fred Behrend). Red-headed Woodpecker: 11 Oct. (1) RC (GE, RL). *YELLOW-BELLIED FLYCATCHER:* 1 Oct. (1) Eliz. (HF). Least Flycatcher: last seen 4 Oct. (1) RM (ES). Horned Lark: (1-3) thru-out period at Eliz. airport (GW et. al.).

Swallow-Sparrow: Rough-winged Sparrow: last seen 20 Sept. (1) HM (GE, GW). Cliff Swallow: 13 Sept. (3) HM (GE, GW). Short-billed Marsh Wren: 4 Oct. (1) HS (GW). Solitary Vireo: last seen 27 Oct. (1) Bri (DW). *PHILADELPHIA VIREO:* 4 Oct. (2) IMG (SG, RL); 9 Oct. (1) RC (SG, MD). Swainson's Warbler: 10 Sept. (1) near Erwin (RL). Orange-crowned Warbler: 4 Oct. (2) IMG (RL, SG). Palm Warbler, thru end of period (1) Bri (DW). *CONNECTICUT WARBLER:* 19 Oct. (1) Washington County (Jake Slonaker). Wilson's Warbler: 13 Sept. (1) RM (GW). Rose-breasted Grosbeak: last seen 9 Oct. (1) RM (ES). Blue Grosbeak: 24 Aug. (1) HS (GE, HF). Pine Siskin: 13 Sept. (2); 4 Oct. (2); and 9 Oct. (10) RM (LRH, ES); 29 Oct. (35 low elevation) Eliz. (GE). White-crowned Sparrow: first return 14 Oct. (12) RC (DL). White-throated Sparrow: first return 4 Oct. (2) Eliz. (GE, HF).

Locations: Bri—Bristol; Eliz—Elizabethton; GSMNP—Great Smoky Mtn. National Park; HM—Holston Mtn.; HS—Hunter Swamp; IMG—Iron Mtn. Gap; MC—Milligan College; RC—Roans Creek; RM—Roan Mountain; WatL—Watauga Lake; WibL—Wilbur Lake.

Observers: MD—Martha Dillenbeck; BE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LH—Lois Herndon; LRH—Lee R. Herndon; DL—Dick Lura; RL—Richard Lewis; JM—John Martin; PR—Pete Range; ES—Ed Schell; DW—Diane Wilson; GW—Gary Wallace.

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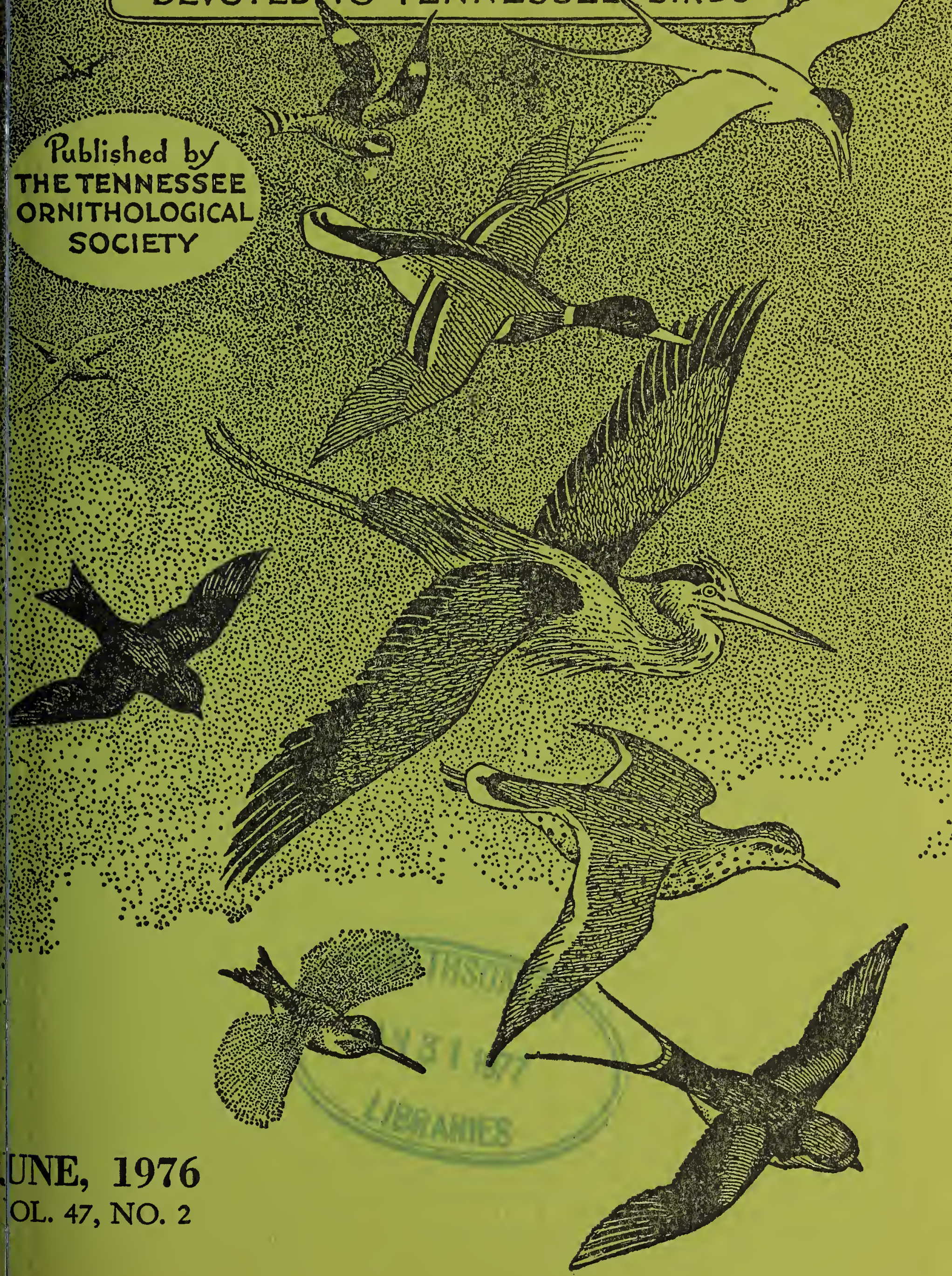
THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS



Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

LIBRARIES

UNE, 1976
OL. 47, NO. 2

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Annual dues, $4.00; Sustaining, $7.50; Life, $100.00; Student, $3.00; Family, $5.00; (chapters may collect additional fees to cover local expenses). Dues, contributions, and bequests are deductible from Federal income and estate taxes. Back numbers may be had from Dr. James T. Tanner, Rt. 28, Box 155, Knoxville, Tenn. 37920. Correspond with the Treasurer for subscriptions, memberships, and changes of address.

Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 47 JUNE, 1976 NO. 2

ANNUAL AUTUMN HAWK COUNT

Thomas W. Finucane

In 1975 the T.O.S. Autumn Hawk Count totaled 17,062, with 16,510 Broad-winged Hawks. Our average over the last five years was 18,000 hawks. In 1975 a record 422 hours of observation was established, shattering the old record of 369 set in 1974. The hawk count in 1975, however, was nearly 7,000 lower than in 1974. Of the stations giving the five highest counts that year, all had lower counts in 1975, a total decline at those stations of 13,000. In particular, the Mendota Fire Tower had 9,800 fewer Broad-wings, in spite of more hours and more people participating. Chattanooga area stations, on the other hand, had outstanding flights of Broad-wings.

The halfway point in the migration came late, on 25 September. Ninety percent of the count accumulated over a period of 15 days, longer than average, which was 11 days for the years 1970-74. Between 15 and 24 September only 21 September had a good Broad-wing count. The 90% interval began on 13 September and ended on 27 September (both days were Saturdays). On this basis the Broad-winged Hawk migration was early. All the 90% periods for the five years before 1975 fell between 15 and 30 September.

The most remarkable observation in the 1975 season was made by Tom Odom. Playing tennis in Kingsport, he threw the ball up to serve and spotted 30 Broad-winged Hawks flying south across the sky. The date was 16 August.

The 1975 count of Sharp-shinned Hawks was 158, more than double our average for the five preceding years. The count at the Rogersville Kyles Ford station on Clinch Mt., probably our best lookout for Sharp-shins, was 65, higher than last year's total for the whole T.O.S. project. The species has been recovering after having dropped to below 30% of its population 40 years ago, as shown in hawk-migration data. Nearly all the hawk-migration stations in Eastern North America had record counts in 1975. Hawk Mt., Pa. in the last three years, 5,125, 6,791, and 8,232 Sharp-shinned Hawks after 33 years with no counts above 4,500. Our count of 54 Coopers Hawks is a new record for the T.O.S.

The total for Red-tailed Hawks was 125, a difficult count to make, because some Red-tails fly up and down the ridges or perhaps pass far out over the valley on the return trip. The 1975 count is the highest we have had except for several

TABLE 1

ANNUAL AUTUMN HAWK COUNT, 1975

No	Date	Obs	Hrs	Station	Alt	Wind	Sky	T	Shn	Cp	Rdt	Rs	Bdwg	MH	Osp	AK	Others		
1	8/16	Tte	¼	Kingsport	1200	B 1-2	1	80	-	-	-	-	30	-	-	-	-	-	-
2	9/1	T	7	Rog Kyles Fd FT	2401	NW 1-2	2	68	-	-	-	-	9	-	-	-	-	-	-
3	5	T	5	Rog Kyles Fd FT	2401	SE 0-3	5	65	-	-	-	-	0	-	-	-	-	-	-
4	10	Fm	3	Mendota Fire Tower	3018	3-5	3	-	-	-	-	-	8	1	-	-	-	-	-
5	13	G	3	Head River rocks	2100	- -	-	-	1	1	4	-	200	-	-	2	-	-	-
6	13	L	6	White Oak Mt FT	-	S-WSW 1-3	2	72	4	1	5	-	112	-	-	1	-	-	-
7	13	-	-	Roan Mt Nat Rally	6000	-	1	-	-	-	-	-	20	-	-	-	-	-	-
8	13	AW	5	7 mi N of Crossvl	1860	S-5	-	60	-	-	-	-	179	-	1	-	3b	-	f
9	13	Tt	8	Rog Kyles Ford FT	2401	NE-1	2	60	1	-	2	-	196	1	2	-	-	b	-
10	13	QS	9	Mendota Fire Towr	3018	2-3	2	55	1	-	3	-	424	-	-	1	-	-	-
11	14	W	8	7 mi N of Crossvl	1860	0-2 SE	2	66	-	-	-	-	400	-	-	-	-	b	-
12	14	TNt	8	Rog Kyles Ford FT	2401	0-3 SE	1	60	3	-	1	-	204	-	1	-	-	-	4u
13	14	F14	8½	Mendota Fire Towr	3018	-	1	-	1	2	1	-	336	-	1	2	-	-	u
14	14	E	2	Nickelsville Va	-	-	-	-	-	-	-	-	497	-	-	-	-	-	-
15	15	G	4½	Head River rocks	2100	-	-	-	2	-	1	-	81	-	1	-	-	-	u
16	15	W	7	7 mi N of Crossvl	1860	SE 0-3	3	68	-	-	-	-	43	-	-	-	-	-	u
17	15	T	9	Rog Kyles Fd FT	2401	SE 0-4	3	62	-	-	6	-	21	-	-	-	-	-	2u
18	15	CEF	4	Mendota Fire Tower	3018	SE 3-6	v	62	-	-	-	-	27	-	-	-	-	-	-
19	15	E	1	Nickelsville Va	-	- -	0	70	-	-	-	-	154	-	-	-	-	-	-
20	16	G	2	Head River rocks	2100	- -	-	-	2	-	-	-	38	-	-	-	a	2b	u
21	16	W	7½	7 mi N of Crossvl	1860	E 0-1	4	-	-	-	-	-	6	-	-	-	-	-	-
22	16	F	3	Mendota Fire Tower	3018	v 0-1	4	-	-	-	-	-	104	-	-	-	-	-	-
23	-	D	9	Dunlap Fire Tower	2240	- -	-	-	2	1	3	-	62	-	-	1	2b	-	-
24	18	W	6	7 mi N of Crossvl	1860	v 0-2	5	67	-	-	-	-	0	-	-	-	-	-	-
25	18	L	4	Missionary Ridge	-	W 0-1	3	72	-	-	-	2	0	-	-	-	-	-	-
26	19	G	1½	Head River rocks	2100	- -	-	-	-	-	-	-	44	-	-	-	2b	-	-
27	19	L	5	White Oak Mt FT	1425	S-W 1-3	2	72	4	1	5	-	112	-	-	1	-	-	-
28	19	W	7	7 mi N of Crossvl	1860	SE 0-2	3	74	-	-	1	-	52	-	-	-	-	-	u
29	19	F	6	Rog Kyles Fd FT	2401	W 0-6	3	-	2	1	2	-	5	-	-	-	a	b	-
30	19	19	2½	Mendota Fire Tower	3018	S	3	72	-	-	-	-	115	-	-	-	-	-	-
31	-	D	8	Dunlap Fire Tower	2240	- -	-	-	3	1	5	-	50	1	-	-	-	-	-
32	20	G	2	Head River rocks	2100	- -	-	-	-	-	-	-	8	2	-	-	a	b	-
33	20	K	9	Signal Point	-	SW-N 2-4	4	77	2	-	2	-	12	-	-	-	-	-	-
34	20	W	7	7mi N of Crossvl	1860	- -	5	65	-	-	-	-	-	-	-	-	-	-	-
35	20	35	6	Avondale Fire Tower	2485	SE 3-6	5	63	4	8	-	-	189	-	-	2	-	-	-
36	20	T	7½	Rog Kyles Ford FT	2401	S-v 0-3	4	67	11	-	4	-	136	-	-	-	-	-	6
37	20	Y	7½	Holston Mt Radar	4332	S	4	65	-	1	1	-	21	1	-	-	-	-	-
38	20	38	8	Mendota Fire Tower	3018	- -	4	-	8	4	-	-	265	2	-	-	-	-	-
39	20	E	-	Copper Ridge	2200	- -	-	-	-	-	-	-	47	-	-	-	-	-	-
40	20	Z	-	Copper Ridge	2100	- -	-	-	-	-	-	-	150	-	-	-	-	-	-
41	21	G	4	Lookout Mt Hi Pt	2392	- -	-	-	-	-	-	-	239	1	-	-	2a	b	-
42	21	K	8	Signal Point	1972	S-SW 3	0	-	-	-	2	-	1	1	-	-	-	-	-
43	21	W	6	7 mi N of Crossvl	1860	v -	1	-	-	1	-	-	354	-	-	-	-	b	f
44	21	U	-	Look Rock, Foothills Parkway			-	-	-	-	-	-	361	-	-	-	-	-	-
45	21	35	5	Avondale Fire Tower	2485	NW 2-3	1	72	3	1	1	-	3	-	-	1	-	-	-
46	21	TtN	8½	Rog Kyles Ford FT	2401	N-W 0-2	1	66	7	1	4	-	446	-	-	-	a	b	4u
47	21	RX	4	Meadow Creek Tower	2875	- -	-	-	-	-	1	-	20	-	-	3	-	-	-
48	21	C	3	Holston Mt Radar	4332	- -	1	70	-	-	-	-	-	-	-	-	-	-	-
49	21	F	9¼	Mendota Fire Tower	3018	SW 0-3	2	70	4	3	-	-	1319	-	-	-	-	b	-
50	22	B	4	Look Rock, Fthls Pkwy		NW-W 5-6	5	50	-	-	-	-	-	-	-	-	-	b	-
51	22	T	2	Rog Kyles Ford Tower		NE 3-5	5	60	-	-	-	-	-	-	-	-	-	-	-
52	22	Fb	2	Mendota Fire Tower	3018	- -	5	-	-	-	-	-	3	-	-	-	-	-	-
53	24	T	8	Rog Kyles Ford FT	2401	NW 2-3	4	60	9	1	1	-	307	2	-	-	-	-	5u
54	24	F	4½	Mendota Fire Tower	3018	S 0-6	4	72	-	-	-	-	113	-	-	-	-	-	u
55	25	B	3	Look Rock	-	NW 3-2	1	65	-	-	-	-	131	4	-	-	a	-	u
56	25	T	8	Rog Kyles Ford FT	2401	S-v 0-4	2	60	19	1	4	-	926	-	1	-	3a	-	3u
57	25	F57	8½	Mendota Fire Tower	3018	SSE 0-1	2	63	6	4	1	-	360	-	-	2	4a	-	2u
58	26	I	1	Chattanooga	700	N 2	5	59	-	-	-	-	500	-	-	-	-	-	-
59	26	L	1	White Oak (from below)		0	5	65	-	-	-	-	257	-	-	-	-	-	-
60	26	M	4	Rockwood Fire Towr	2040	- -	5	55	12	-	-	-	269	-	-	-	3a		Rflg
61	26	Fc	5	Mendota Fire Tower	3018	S 0-1	5	63	-	1	1	-	324	-	1	-	-	-	u
62	27	G	3	Head River rocks	2100	- -	-	-	1	-	-	-	57	2	-	-	a	2b	-
63	27	O	1	Collegedale Gap	850	NE 0-3	5	50	-	-	-	-	2000	-	-	-	-	-	-
64	27	K	8	Signal Point	1972	NNE 3-4	1	65	-	1	4	-	2	-	-	1	-	-	-
65	27	L	7	White Oak FT	1425	NNE 3-6	3	50	2	3	6	-	1027	1	3	1	-	-	-
66	27	W	7½	7 mi N of Crossvl	1860	NE 0-1	4	55	-	-	1	-	925	-	-	-	9a	b	8u
67	27	PJ	2	Rockwood Fire Towr	2040	NE 2	3	52	1	-	3	-	680	-	1	-	-	-	-
68	27	B	3	Look Rock		W 4	3	63	-	-	-	-	-	-	-	-	2a	-	-
69	27	T	8	Rog Kyles Ford FT	2401	N 0-5	3	58	11	-	3	-	20	-	1	-	-	-	-
70	27	C	4	Holston Mt Radar	4332	S breeze		60	1	1	-	-	337	-	-	-	-	-	u
71	27	F71	8	Mendota Fire Tower	3018	N 0-5	4	54	5	4	-	-	34	-	2	-	a	-	-
72	28	G	3½	Lookout Mt Hi Pt	2392	- -	-	-	3	2	-	-	48	-	-	Peregrine ♂			
73	28	K	8	Signal Point	1972	v 0-2	4	65	5	1	4	2	2	-	-	-	4a	b	u
74	28	74	1	Lookout Mt Tenn		NE 0-2	0	60	-	-	-	-	35	-	-	-	-	-	-
75	28	W	7	7 mi N of Crossvl	1860	E&SE0-2	2	66	1	-	-	-	343	-	1	1	3a	4b	4f
76	28	76Fb	5	Mendota Fire Tower	3018	S 0-3	0	57	2	1	1	-	3	-	-	-	-	-	-
77	29	G	1¼	Lookout Mt Hi Pt	2392	- -	-	-	-	-	-	-	26	-	-	-	-	b	-
78	29	W	6	7 mi N of Crossvl	1860	SSE 0-3	1	70	-	-	-	-	252	-	-	-	3b	7f	3u
79	29	R	3	Meadow Creek FT	2875	v light	2	65	-	-	-	-	7	-	-	2	2	large	u
80	30	H	5	Fall Creek Falls	1800	- -	-	-	-	-	3	-	55	2	-	-	-	-	-
81	30	W	8	7 mi N of Crossvl	1860	SE 0-1	2	72	-	2	-	-	98	-	-	1	a	2b	2f
82	30	P	3½	Rockwood Fire Towr	2040	SW 0-1	0	60	-	-	-	-	2	-	-	-	5a	-	-
83	10/1	N	½	7 mi E of Gatlinburg		- -	-	-	-	-	-	-	75	-	-	-	-	-	-
84	2	G	1½	Head River rocks	2100	- -	-	-	1	-	1	-	103	-	-	-	-	-	u
85	2	G	2	7 mi N of Crossvl	1860	v 0-3	0	52	-	-	-	-	-	-	-	-	-	-	-

86	4	PV	4	Rockwood Fire Towr	2040	SW	2	1	52	5	5	1	-	-	-	-	-	4a	-	-
87	4	Cm	3	Holston Mt Radar	4223	-	-	1	-	-	-	-	-	35	-	-	-	-	-	-
88	5	G	2¼	Lookout Mt Hi Pt	2392	-	-	-	-	3	1	1	-	49	-	-	-	-	-	-
89	5	F	3	Mendota Fire Tower	3018	SE	5-3	5	52	-	-	-	-	-	-	-	-	-	-	-26u
90	6	F	5½	Mendota Fire Tower	3018	v	0-4	2	65	5	1	4	2	2	-	-	-	4a	b	u
91	21	G	2¼	Head River rocks	2100	-	-	-	-	-	-	1	-	-	3	-	-	2a	b	11u
92	22	G	1¾	Lookout Mt Hi Pt	2393	-	-	-	-	1	-	4	-	3	-	-	-	a	-	-
93	25	G	1½	Lookout Mt Hi Pt	2393	-	-	-	-	-	-	-	-	-	2	-	-	2a	-	f
94	30	G	1½	Head River rocks	2100	-	-	-	-	-	-	6	2	-	3	-	-	-	-	-
95	31	G	1¾	Head River rocks	2100	-	-	-	-	1	-	8	-	-	3	1	-	-	1	-
96	11/8	G	2½	Lookout Mt Hi Pt	2393	-	-	-	-	-	-	11	-	-	1	-	-	a	b	-
97	11/1	T	6	Rog Kyles Ford FT	2401	NW	0-3	0	55	-	-	7	-	-	-	-	1	-	-	1
98	11/12	G	1½	Head River rocks	2100	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-

years in the early sixties when Oliver Irwin was contributing data from Memphis. Gary Bayne added 35 to the Red-tail count from short watches on Lookout Mountain, Ga., late in the season. It could become our first good station for studying the migration of the Red-tailed Hawk.

The Marsh Hawk total was 33, also more than double the T.O.S. average for the previous five years. It was an outstanding Marsh Hawk year for nearly all stations reporting to HMANA.

We had 21 Ospreys. This beautiful bird began flying by lookout stations in record numbers around 1970, when it should have been disappearing because of widespread nesting failures from egg fragility considered to be an effect of insecticides in the adult birds. For several years now, however, Osprey counts have been subsiding at many stations. The effect can be seen in the Osprey data in Table 2.

The Tennessee Ornithological Society hawk-migration project is dominated by Broad-winged Hawks. A year when the other species constitute three percent of the data is a rare occurrence. When we speculate on the changes in counts of the other species, our sample size seems small. But the Sharp-shin, Marsh Hawk, and Osprey numbers do seem to be rising and falling like those in the large counts in the Northern Appalachian Region.

Although our counts of other hawks are relatively small, our counts of Broad-wings, compare well with Hawk Mt., Montclair, Raccoon Ridge, Hook Mt., etc. The really large counts of Broad-wings, up to 70,000 in one day, have been compiled along the north shores of the Great Lakes. The T.O.S. totals are combinations of data from many lookouts, and no single lookout grinds out big numbers every year.

TABLE 2

SEVEN YEARS OF T.O.S. HAWK TOTALS

Year	*Hrs*	*SS*	*CH*	*RT*	*RS*	*Bw*	*MH*	*Os*	*AK*
1975	422	158	54	125	7	16610	33	21	17
1974	369	62	32	81	10	23564	16	19	34
1973	316	61	25	75	18	20370	14	28	6
1972	337	104	35	93	10	15057	25	36	26
1971	250	68	34	45	12	13452	11	28	19
1970	180	81	16	47	7	16598	10	23	7
1969	249	14	9	36	7	4215	1	7	13

Our hawk watch is different. The fact that we observe at so many places with different characteristics — our wide range of altitudes, for example — gives us an advantage in the interpretation of weather effects.

KEY TO REPORTERS

A—Adele West; B—Bill and Irene Williams; C—Charlotte Finucane; D—Daniel Jacobson; E—Eugene Scott; F—Tom Finucane; G—Gary Bayne; H—Mary Shafer; I—Janet Phillips; J—J. B. Owen; K—Ken Dubke; L—Lil Dubke; M—Mary Jane and Boyd Sharp; N—Susan Mengel; O—Gertrude Fleming; P—Boyd Sharp; Q—Bob Quillen; R—Royal and Helen Spees; S—Arthur Smith; T—Tom Odom; U—David Highbough; V—Gary Muffly; W—Gene West; X—Margaret and King Gaut, Mealer Mathiesen; Y—Glen Eller, Gary Wallace; Z—Homer and Garland Osborne; b—Barney Finucane; c—Cliff Coney; e—Ethyl Odom; m—Marion Finucane; t—Tom Odom III; 14—Bob Quillen, m, b, Gracie Finucane, Roy and Hattie Allen, Jim Price, Alan Cook, Jim Gilland; 19—C, Max Carpenter, Dennis Martin, Gary Spires, Wallace Coffey; 35—Gracie, Joe, Dick Finucane, Jeff Dawson; 38—Bob Quillen, Jim Price, Fred Alsop with 11 students, Eleanor and John Knapp with a party of 10, Pete Range and family, Mark Buckner and his grandfather; 57—Bob Quillen, Rick Phillips, Tom Green and wife, Richard Craven, Max and John Muller; 71—Lee and Lois Herndon, John and Caroline Martin, Mike Abbot; 74—Harvey Wilkerson.

BEAUFORT WIND SCALE

0—less than 1 mph; 1—1 to 3 mph; 2—4 to 7 mph; 3—8 to 12 mph; 4—13 to 18 mph; 5—19 to 24 mph; 6—25 to 31 mph.

SKY CODE

0—no clouds; 1—generally fair, with no long periods in shadow; 2—partly cloudy; 3—mostly cloudy; 4—light overcast; 5—heavy overcast, heavy fog, or rain.

THE HISTORY OF AMERICAN ORNITHOLOGY

(A Sketch for the Bicentennial Year)

Ann T. Tarbell

Surely those were birds flying over the endless ocean! And birds meant land! A weary Columbus sailed on, and on 12 October, 1492, his landfall in the West Indies marked the discovery of the New World. The master navigator displayed brilliant bird skins and exotic parrots to Ferdinand and Isabella, and in subsequent years the Spanish galleons brought back not only treasures of gold and jewels, but unfamiliar plants and animals and scores of travellers' tales to quicken the interest of the Old World.

Only a few accounts were valuable as natural history and those were mostly on flora. Ponce de Leon, finding "the Flowery Land" in 1513 noted the bright parrakeets, and the important work, *Natural History of the West Indies*, by the Spaniard Oviedo in 1526 contained many first hand observations on birds.

Meanwhile, in the northern seas the French navigators were reporting. Jacques Cartier in 1545 described the incredible, raucous hordes of sea birds on the "Bird Rocks" of the Canadian shores and that fine naturalist-explorer, Samuel de Champlain, kept accurate diaries (1603-1635) describing the Black Skimmer, Wild Turkey, thousands of wild pigeons, and other land and water birds. Jacques Le Moyne of the French Huguenot colony in Florida and South Carolina, was our first zoological artist in 1562, and Denis of Arcadia published on America's coastal natural history in 1672.

Sir Walter Raleigh's Lost Colony of Roanoke, 1585, left a valuable legacy: John White's numerous water colors of Virginia birds—Blue Jay, Towhee, Bluebird, and others—and John Hariot's *Report* listing 86 birds, a fine count.

In 1662 the Royal Society of London was chartered and this company of natural philosophers greatly stimulated the development of all sciences in America through its patronage and its Colonial Fellows. Their correspondence and specimens provided an enormous body of first-hand observation and material for study and publication on both sides of the Atlantic.

Of interest is the fascination exerted on all early observers, Spanish, French, and English, by 3 New World birds: the eagle for its size, the handsome "Turkie," and the "Hum-bird." That midget with its ruby throat, was it a cross between a fly and a bird, a beetle and a bird? Even his Majesty, Charles II, marvelled at the tiny nest and eggs carefully dispatched from Massachusetts Bay by John Winthrop, Jr. in 1670.

Mark Catesby had no equal in organized study of America's wilderness; coming from England in 1712 well sponsored by scientists of the Royal Society and friends, he studied, collected, sketched, and painted the flora, fauna, and topography of southern regions. He has received deserved recognition for his beautiful and "noble work," *Natural History of North Carolina, Florida and the Bahama Islands*, completed in 1747. His finest contributions were in ornithology and his book remains a classic; he is remembered as the "Founder of American Ornithology."

Pioneer American scientists included an eminent group in Philadelphia among whom were John Bartram, botanist, and his son, William, 1739-1823, the Florida Traveller, whose list of 215 native birds was the most complete until Wilson's work.

Lewis' and Clark's Expedition to the Pacific in 1803-1806 followed remarkable instructions for field observations and recording given by President Jefferson, a talented natural historian himself, and kindled great enthusiasm for science in the new republic. Lewis, a careful observer, described about 53 western birds, many new, and among them the two which were to commemorate the explorers, Clark's Nutcracker and Lewis' Woodpecker.

The next impressive American work was the *American Ornithology* published 1808-1814 by Alexander Wilson. Self-taught, devoid of native artistic ability but driven by his goal and encouraged by Bartram, this former Scottish weaver and poet collected east of the Mississippi, meeting Audubon in Louisville naming the Nashville Warbler in Tennessee in 1810, soliciting subscriptions. His birds although poorly drawn and colored are memorable, and his accurate and charming observations and great compilation of 245 species have entitled him the "Father of American Ornithology."

Field naturalists pushing farther west were the eccentric Thomas Nuttall, who explored alone the Missouri Basin and the Ozarks (1809-1820) and accompanied John K. Townsend to the Pacific Northwest in 1834; Charles Lucien Bonapart, nephew of Emperor Napoleon, and one of our greatest ornithologists, who published his *American Ornithology*, a continuation of Wilson's, in 1828; William Cooper of New York and Thomas Say of Philadelphia, all collecting, classifying, and publishing with enthusiasm.

The beauty and wealth of America's bird life was revealed by John James Audubon's magnificant, life-size aquatints in the *Elephant Folio* (1827-1838). The second edition, completed in 1844, adding birds from the Northwest and from Audubon's trips to Labrador and the Missouri depicted almost 500 birds and included the text of his *Ornithological Biography* and the plates as *The Birds of America*. Many people had helped, his wife, Lucy, and two sons; his best friend, naturalist John Bachman, William MacGillivray who collaborated on the text; and eager young men, Richard Harlan, Edward Harris, Isaac Sprague, Thomas Brewer, Thomas Lincoln, John Bell, and others. The romantic story of Audubon's life and the magnificence of his work have made him an almost legendary figure.

Meantime the West was opening up, as trappers, traders, explorers, artists, and emigrants thronged the wilderness. Dr. William Gambel was the first birdman down the Santa Fe trail in 1841, collecting in the Southwest and California, and in the next 3 decades, the West was criss-crossed by hundreds of expeditions. Crack survey teams from the Army Corps of Engineers ran the Mexican boundaries, settled by 1854, and surveyed routes for the Pacific railroads. Expeditions fought Indians, established Army posts, protected covered wagon roads and mapped the land. With every government force went field naturalists, organized and directed by the brilliant Spencer Fullerton Baird, friend of Audubon and second Secretary of the Smithsonian, intent on recording the splendor of the flora, fauna, and topography of pristine America. For years the birdmen, many of them Army doctors and including Abert, Xantus, Coues, Mearns, Maynard, McCown, Heerman, Bendire, Henshaw, Ridgeway, and others, toiled through mountains, deserts, and plains, forwarding specimens to the National Museum and building its fabulous collections.

From the many illustrated volumes of the railroad surveys, Baird, with the assistance of taxonomists John Cassin and George Lawrence, had printed *The Birds of North America* (1858), a landmark publication, and Dr. Elliott Coues and Robert Ridgeway developed into the century's leading ornithologists publishing the great *Key to North American Birds* (1872) and *Ornithology* (1877), respectively.

Thirty years of bone-cracking expeditions in Canada's arctic (1819-1849) by British explorers, Richardson, Ross, and Franklin, revealed boreal birds—owls, grouse, partridges, and the myriads of summering waterfowl and songbirds. Young John Kennicott and his crew struggled from Puget Sound to the foggy Bering Straits compiling montane species and the white hordes of nesting oceanic birds (1864-1866), and Edward Nelson later studied the teeming shorebirds of Alaska's tundra.

By 1880 most of America's birds were compiled and the great centers of zoological research, the eastern Museums in Boston, New York, Philadelphia, and Washington, bulged with skins and egg collections to be classified and reclassified. The remaining proper names (and numerous "old-time" ones) of species which commemorate these early naturalists—Wilson's Warbler, Baird's Sandpiper, and so many others—lend color and historical interest to the study of American birdlife.

Ornithological societies were formed to promote research: the Nuttall in Cambridge (1873) by the brilliant and winning William Brewster; the Wilson (1888) in the mid-west; the Cooper (1893) in California; and the most important, the American Ornithologists' Union (1883), publisher of the *Auk* and of checklists begun in 1886. Intensive regional studies increased and Lt. Bendire comenced the valuable *Life Histories* (1892-1895) to be continued later by A. C. Bent.

The powerful Biological Survey of the U. S. Department of Agriculture (1886), headed by C. Hart Merriam, originator of the life-zone concept, directed much national wildlife research. Thousands of studies on birds' foods were made and A. K. Fisher's valuable report on *Food of Hawks and Owls* (1888) demonstrated for the first time the beneficial role of raptors.

The protectionist movement was stirring as ornithologists, appalled by the massive slaughter for market and millinery trade—countless thousands of shorebirds, terns, gulls, egrets, and songbirds decorating ladies' bonnets—foresaw extinction of many species and endeavored to secure strong laws. John Burroughs, first popular nature writer, by his influential *Wake Robin* (1871), opened sympathetic eyes to the public's feathered friends and other popular writers followed. George Bird Grinnell, editor of *Forest and Stream*, a powerful force for conservation, founded the first Audubon movement in 1886 which thousands of school children and adults joined and which spread rapidly. Schools celebrated "Bird Day" museums, societies, lecturers, and newspapers worked to educate the public and Frank Chapman published the first popular *Handbook of Birds of Eastern North America* (1895) and started the magazine, *Bird Lore,* in 1899. America's bird life was well compiled, but the flight to preserve it was just beginning.

The twentieth century opened on an encouraging note with the passage of the Lacey Act by Congress in 1900 which prohibited interstate commerce in game and feathers, and thus enabled the states to enforce their many protective laws. Desperate and unceasing labor for years more was needed to save the world's dwindling and persecuted bird life; over 60 species were endangered. President Theodore Roosevelt, well remembered for his influential role in conservation, acting to save Brown Pelicans nesting in Florida created the first National Wildlife Refuge in 1903. The National Audubon Society, reactivated in 1905 by William Dutcher, manned Florida sanctuaries to fight the plume hunters of this multimillion dollar world trade. Due largely to the efforts of T. Gilbert Pearson of the A. O. U., William Hornaday and a public shocked by the murder of Audubon wardern, Guy Bradley, by plume hunters, the basic protective law, the Migratory Bird Treaty Act, was enacted by Congress in 1918 and since then has slowly been effectively broadened to protect almost all of the 850-odd species in North America. It is thanks to these state and federal laws regulating protection, hunting, and management that we can still enjoy our beautiful varied bird life, much of it earlier doomed to almost certain extinction, the fate of the Great Auk, Labrador Duck, Heath Hen, Passenger Pigeon, and Carolina and Louisiana Paroquets. Vigilance and public education are constantly needed, as shown by the tragic slaughter of raptors, unprotected for decades, their plight publicized by the establishment of Hawk Mountain Sanctuary in 1934 and by recent killings of eagles.

Frank Chapman wrote of this century "that it is our knowledge of living rather than dead birds which has increased." Although much work still involved classification and description of valuable museum collections, witness the continuing revision of the North American check list by the A. O. U. and the 15-volume *Chek-list of Birds of the World* now being completed by Ernst Mayr of Harvard, interest was turning to the study of the ecological niche and the life processes of the bird.

The centers of knowledge in the early decades were still in the museums, the most influential being the wealthy Museum of American History in New York with its remarkable staff, Frank M. Chapman, educator and ornithologist extraordinary; J. A. Allen, biographer; Robert Cushman Murphy, authority on sea birds; and others. The U. S. National Museum claimed the scholarly Robert Ridgway, Alexander Wetmore, and S. Dillon Ripley, and distinguished work was done elsewhere around the country. The Museums have launched numerous field expeditions to foreign lands and oceans and American ornithologists have become experts on exotic birds.

Other institutions were gaining prestige. Cornell was the first university to appoint a professor of ornithology, A. A. Allen, in 1915, and on the West Coast Joseph Grinnell directed graduate work at about the same time at U. California. Now over 50 universities give Ph.D. degrees in this field—Michigan, Yale, Kansas, U.T. L.S.U., F.S.U., and others. The Special Laboratory of Ornithology at Cornell, Sapsucker Woods, was established in 1957. Much very technical research work using sophisticated equipment for studies in migration, physiology, behavior, taxonomy, and ecology is now performed in indoor laboratories. Departments of wildlife biology doing research are operated by state and federal agencies and significant work is done in National Parks and in the more than 350 federal refuges of over 30 million acres.

Major new tools of investigation are photography, first developed by Chapman and invaluable in life history; bird-banding and color marking, supplying data on millions of birds; radar for monitoring migration; sound recordings for song studies; improved optical equipment and statistical methods. Audubon Christmas Counts, started by Chapman in 1900, federal censuses, and data from established field stations supply field information.

A perfect flood of publications, scientific works, journals of all levels, excellent state bird books, and popular literature, not only has served to disseminate scientific knowledge, but has activated amateur interest to an unprecedented degree. Artists (Fuertes, Peterson, Sutton, Harm, Coheleach, and others), photographers, and lecturers have been influential, state societies have been productive, and R. T. Peterson's and C. Robbins' handbooks have been of immeasurable consequence.

The interest and work of amateurs in ornithology, mostly in field work and conservation, have contributed much, and ornithological societies have served to tie together the professional scientist and the bird-watcher to create an epoch of unparalleled knowledge, enthusiasm, and concern for America's bird life.

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THE 1975 CHRISTMAS BIRD COUNTS

Morris D. Williams

This year's total of 132 species on the counts across the state ties the 1972 total for the second highest count ever. However, the total number of individual birds was low this year. The total of approximately five million birds is only one-third of last year's total. Fewer reports of large numbers of Starlings and Icterids were received this year.

Three species appear for the first time on the Tennessee Christmas Counts; they are: Western Grebe, Surf Scoter, and Cape May Warbler. This brings the total number of species recorded on the Christmas Counts to about 187.

I have several requests to make of local compilers in order to make the state counts more accurate and complete. All unusual species reports should be accompanied by supporting details. These details should be prepared by the original observer as soon as possible after the observation is made. I am sometimes asked, "How does the observer know which species need to be supported by notes?" In general, if the observer does not know that a particular species is unusual, that is sufficient grounds for doubting the record, and the local compiler should delete the record if the observer can not provide convincing details. Including notes with an observation does not always insure that the observation will appear in the tabulation. I am sometimes not convinced that a species can be unquestionably identified in the field under certain conditions. However, since I could be wrong in my decision to delete a species, these deletions are included in the section with information on the counts. Two species that I frequently have doubts about are the Scaup Ducks. We should report these as "Scaup Sp." unless we can give good evidence for ascribing them to the Greater or Lesser species.

Several errors recur in the reports that I receive. Species lists should be submitted in A.O.U. order. The new field lists prepared by TWRA and TOS show the correct order, and these lists are ideal for submitting reports. If these lists are not used, use proper English names. One report this year listed "Common Grebe." Take care to report all of the birds found during the count. Common species such as Eastern Meadowlarks are sometimes not reported. List the participants in alphabetical order, taking care to spell names correctly. I think it would be a good idea to ask someone who is familiar with birds and the participants in a count to proof read counts before submitting them. Finally I would ask compilers to send in their counts as soon as possible after the count. This year, I had begun to receive Spring Counts before all of the Christmas Counts were received.

I appreciate the efforts of local compilers to get their completed reports submitted on time. I realize that their job is difficult and time consuming.

INFORMATION OF THE COUNTS

MEMPHIS—21 Dec.; 06:45 to 16:45; mostly to partly cloudy; tem. 34° to 39°; wind, N, 10-15 mph; 27 observers in 12 parties; 66 party-hours (48 on foot, 18 by car); 156 party-miles (55 on foot, 101 by car).

David R. Brown, Mr. and Mrs. Ed Carpeiter, Lula and Ben B. Coffey, Jr. (compilers—672 N. Belvedere, Memphis 38107), Julian Darlington, Fred

THE 1975 CHRISTMAS BIRD COUNTS

	Memp	Reel	Hend	Dove	Clar	Lawr	Ashl	Colu	Nash	Hick	Murf	Leba	Manc	Cook	Chat	Hiwa	Knox	GSMN	Gree	King	Eliz	Bris
Common Loon	--	--	--	--	--	--	--	--	--	5	--	--	2	--	--	--	2	--	--	2	--	1
Horned Grebe	--	--	--	5	--	2	--	1	--	138	--	--	200	--	5	--	31	--	--	--	12	18
Western Grebe	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pied-billed Grebe	2	14	--	9	6	19	4	31	--	51	--	2	40	1	6	4	36	--	--	17	10	4
Dbl.-cr. Cormorant	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--
Great Blue Heron	--	14	--	30	3	--	26	10	--	16	--	10	6	--	2	119	39	1	1	2	--	15
Bl.-cr. Night Heron	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--
Canada Goose	1	12.5M	--	5M	60	--	36	2	--	74	--	145	38	--	53	550	78	--	--	--	--	--
Snow Goose	45	44	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mallard	99	170M	--	20M	16	8	2.8M	469	--	83	--	67	74	--	29	311	1	--	--	38	86	59
Black Duck	2	3.5M	--	800	4	1	79	14	--	37	--	--	12	--	18	34	12	--	--	50	12	15
Gadwall	--	2.2M	--	50	6	4	6	110	--	3	--	--	3	--	2	20	29	--	--	--	--	1
Pintail	--	600	--	12	--	--	14	--	--	--	--	70	2	--	--	1	--	--	--	--	5	--
Green-winged Teal	--	1.2M	--	2	--	2	15	21	--	--	--	95	--	--	--	--	--	--	--	--	--	--
Blue-winged Teal	--	25	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
American Wigeon	--	350	--	40	6	--	34	2	--	--	--	450	4	--	--	4	2	--	--	--	5	--
Northern Shoveler	2	2.2M	--	1	--	--	10	6	--	--	--	130	--	--	--	--	--	--	--	--	--	--
Wood Duck	8	50	2	--	3	--	2	2	--	3	--	--	--	--	3	--	3	--	--	2	--	--
Redhead	--	600	--	1	--	--	--	2	--	--	--	150	10	--	--	--	8	--	--	--	--	--
Ring-necked Duck	3	2.8M	--	2.5M	60	3	29	63	12	--	23	--	1	--	7	6	4	--	--	30	90	1
Canvasback	2	1200	--	12	3	1	3	4	20	2	--	--	3	--	--	--	--	--	--	17	--	--
Greater Scaup	--	--	--	--	--	--	--	4	--	2	--	--	4	--	45	--	--	--	--	--	--	--
Lesser Scaup	2	80	--	--	2	8	4	--	23	10	5	--	72	--	103	--	1	--	--	4	3	--
Common Goldeneye	--	9	--	--	1	1	--	5	5	51	--	--	32	--	8	--	3	--	--	--	--	6
Bufflehead	--	80	--	2	--	2	--	--	33	17	--	--	16	--	--	27	--	--	--	--	105	1
Oldsquaw	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
White-winged Scoter	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surf Scoter	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ruddy Duck	4	1.2M	--	1	--	9	--	2	--	--	--	--	4	--	--	--	1	--	--	--	1	--
Hooded Merganser	--	30	--	125	--	--	4	--	--	8	--	--	5	20	10	22	3	--	--	--	4	--
Common Merganser	--	15	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Red-br. Merganser	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2	--	--	--	--	--
Turkey Vulture	--	7	17	--	1	2	57	--	19	--	--	12	60	--	--	--	1	--	2	--	--	200
Black Vulture	--	3	--	1	--	--	2	--	64	--	6	--	--	--	--	1	--	--	--	--	--	37
Sharp-shinned Hawk	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	1	--	1	1	--	1	--
Cooper's Hawk	--	--	--	--	3	--	--	--	1	--	--	--	--	2	2	--	--	1	3	1	1	1
Red-tailed Hawk	32	26	--	2	15	13	12	9	16	13	--	5	3	2	19	6	14	11	1	1	2	4
Red-sh. Hawk	--	5	--	--	4	1	6	--	1	1	--	--	--	--	2	--	--	--	--	--	--	--
Rough-leg. Hawk	1	3	--	--	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden Eagle	--	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bald Eagle	--	51	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1
Marsh Hawk	2	3	--	1	3	3	1	2	1	1	1	2	1	--	--	1	--	1	1	--	--	--
Osprey	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Kestrel	--	8	5	2	15	12	28	13	32	43	14	9	18	9	22	4	7	1	1	4	8	21
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	3	4	1

	Memp	Reel	Hend	Dove	Clar	Lawr	Ashl	Colu	Nash	Hick	Murf	Leba	Manc	Cook	Chat	Hiwa	Knox	GSMN	Gree	King	Eliz	Bris
Bobwhite	72	--	28	8	69	19	103	48	50	35	43	--	--	--	10	4	4	16	1	11	15	10
Turkey	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	66	3M	--	200	10	224	4	703	--	253	10	--	119	8	311	118	1.4M	--	--	49	--	58
Killdeer	62	28	6	8	16	20	70	34	52	100	19	13	38	9	101	74	66	79	27	32	45	14
American Woodcock	1	1	--	--	--	--	--	1	--	1	--	--	--	--	3	--	4	--	--	--	--	--
Common Snipe	32	3	16	--	9	15	15	9	4	2	--	3	14	--	21	36	13	--	7	3	3	--
Least Sandpiper	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	29	--	--	--	--	--	--
Dunlin	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--
Herring Gull	7	23	--	--	--	--	--	--	--	16	--	1	15	--	--	2	2	--	--	--	--	4
Ring-billed Gull	9	282	--	1	--	--	1	--	--	230	--	--	10	--	18	45	158	--	--	--	--	150
Bonaparte's Gull	--	24	--	--	--	--	1	--	--	187	--	--	3	--	--	3	1	--	--	--	--	1
Rock Dove	1	4	--	1	39	3	67	81	97	132	--	28	90	--	91	130	328	2	11	63	36	66
Mourning Dove	196	114	114	200	83	81	81	61	174	78	8	229	17	160	552	1	326	137	74	31	43	155
Barn Owl	--	--	--	--	--	--	--	2	--	--	--	1	--	--	1	--	--	--	2	--	--	--
Screech Owl	--	3	--	1	1	1	6	5	7	7	--	6	5	2	1	--	6	4	4	1	12	8
Great Horned Owl	--	1	--	--	1	1	6	9	--	--	--	2	--	2	1	1	2	--	--	1	--	--
Barred Owl	1	10	--	1	7	1	2	3	--	2	--	2	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	4	3	1	3	11	14	20	20	15	26	3	5	14	2	7	8	26	21	3	5	8	14
Common Flicker	221	98	39	4	40	19	48	27	66	52	17	11	16	12	23	4	32	12	3	4	4	6
Pileated Woodpecker	7	19	9	1	24	12	26	23	35	9	--	1	4	7	8	3	9	26	1	7	10	5
Red-bel. Woodpecker	100	65	38	2	53	28	91	63	99	34	3	12	7	25	29	4	20	9	15	8	2	3
Red-hd. Woodpecker	1	128	--	--	1	--	1	2	--	5	--	3	--	2	1	--	1	--	--	1	--	--
Yel.-bel. Sapsucker	61	27	9	3	9	3	24	25	35	28	11	4	--	4	15	1	15	6	--	3	10	4
Hairy Woodpecker	15	7	11	2	7	5	11	11	22	7	2	4	2	5	4	1	3	18	--	5	--	1
Downy Woodpecker	58	51	16	2	58	21	51	58	91	32	8	7	7	27	12	2	25	50	6	12	25	10
Eastern Phoebe	2	8	1	--	3	3	5	--	3	--	--	--	1	1	--	1	3	20	--	5	7	5
Horned Lark	258	117	--	--	25	253	--	10	10	21	--	--	--	--	--	--	3	--	--	--	--	--
Blue Jay	196	91	76	25	233	65	65	64	174	94	57	76	92	121	93	23	291	96	32	41	72	84
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7	--	--	5	--
Common Crow	65	239	21	50	170	105	876	147	1.2M	322	31	36	83	57	126	408	354	234	106	70	287	471
Blk.-cap. Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	534	--	--	--	--
Carolina Chickadee	214	138	38	10	141	32	102	115	232	104	42	84	86	54	91	10	221	*	40	54	90	111
Tufted Titmouse	67	60	33	14	76	28	52	90	148	61	26	45	61	80	71	6	74	246	46	20	53	40
White-br. Nuthatch	2	6	7	3	3	9	22	1	15	2	--	--	6	23	23	--	5	39	4	13	16	17
Red-br. Nuthatch	23	1	10	--	4	1	4	--	1	5	--	--	--	--	8	2	32	26	--	--	15	14
Brown Creeper	18	13	5	--	14	5	10	5	10	8	--	--	--	1	2	--	3	25	2	3	4	4
House Wren	2	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Winter Wren	50	33	9	--	5	5	10	5	8	5	--	2	--	5	1	1	4	34	1	2	2	6
Bewick's Wren	--	--	1	--	2	1	--	2	6	--	--	4	--	--	1	--	--	--	1	--	--	--
Carolina Wren	145	68	56	10	89	21	109	45	115	69	4	7	3	15	51	10	141	77	21	21	45	48
Lg.-bil. Marsh Wren	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Sh.-bil. Marsh Wren	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mockingbird	236	23	22	4	121	55	76	58	195	151	75	75	40	35	58	10	164	29	28	12	30	47
Brown Thrasher	22	16	5	1	2	5	2	5	6	6	5	3	7	12	20	3	5	1	1	1	--	--
American Robin	2.6M	147	77	14	330	28	333	2.2M	897	920	18	25	9	21	60	1	136	25	--	25	4	4

	Memp	Reel	Hend	Dove	Clar	Lawr	Ashl	Colu	Nash	Hick	Murf	Leba	Manc	Cook	Chat	Hiwa	Knox	GSMN	Gree	King	Eliz	Bris
Hermit Thrush	28	54	2	2	3	10	12	6	4	1	1	--	--	--	6	1	--	13	--	--	4	13
Eastern Bluebird	--	15	21	11	180	59	133	56	60	27	4	18	33	31	27	11	45	41	5	25	18	20
Bl.-gr. Gnatcatcher	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden-cr. Kinglet	58	16	116	2	26	32	40	5	12	18	--	1	--	--	28	7	22	189	3	24	22	67
Ruby-cr. Kinglet	124	64	45	--	28	32	40	12	21	20	2	1	2	3	25	3	17	45	4	5	4	21
Water Pipit	--	7	--	20	1	--	53	--	--	--	--	--	--	--	2	44	--	--	--	--	--	--
Cedar Waxwing	648	10	63	16	4	--	--	11	20	84	--	--	--	--	75	15	32	--	--	36	--	--
Loggerhead Shrike	6	14	3	1	12	15	10	16	13	5	4	1	7	4	4	4	5	1	2	1	3	3
Starling	5.1M	.3X	351	50	2.1M	2.6M	1.2M	.35X	3.8M	3.8M	234	1.3M	3.5M	1.5M	1.9M	2.4M	352M	142	410	775	495	10.2M
Cape May Warbler	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Yel.-rumped Warbler	150	45	17	2	26	1	9	5	17	18	2	2	--	1	49	4	93	5	12	31	17	4
Pine Warbler	--	--	2	--	--	--	--	--	--	--	--	--	--	--	2	--	--	1	--	1	--	--
Palm Warbler	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--
House Sparrow	450	160	49	12	151	134	63	39	32	77	189	68	55	109	132	37	62	50	150	43	60	268
Eastern Meadowlark	660	145	33	21	100	121	302	--	145	181	128	65	156	107	68	209	157	136	220	29	27	100
Red-wing. Blackbird	4.9M	1.5X	167	500	800	777	1.8M	.5X	84	184	--	50	1M	--	764	275	3M	4	87	--	--	6
Northern Oriole	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rusty Blackbird	74	215	--	--	--	--	245	80M	55	96	1	--	--	--	43	--	4	1	--	--	--	--
Brewer's Blackbird	10	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	2M	.8X	8M	70	162	14.4M	501	106M	40	10	78	3	9.9M	500	195	55	30M	2	50	--	2	8.7M
Brown-hd. Cowbird	3.9M	80M	6	20	305	200	4	.25X	8	50	16	38	--	8	31	300	1.2M	--	--	--	--	400
Cardinal	637	120	198	24	567	240	397	379	469	250	160	214	80	134	159	26	243	297	54	123	141	144
Evening Grosbeak	--	--	24	31	1	72	23	9	106	1	4	--	50	86	26	--	184	687	55	25	42	8
Purple Finch	121	16	9	--	61	46	27	49	120	434	78	13	4	35	108	27	113	218	11	36	1	18
House Finch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--
Pine Siskin	13	--	34	--	--	--	--	--	--	50	--	--	--	--	30	4	72	52	--	14	--	--
American Goldfinch	265	270	55	18	277	120	137	39	196	304	6	23	6	--	65	20	331	43	5	33	112	75
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	21	--
Rufous-sid. Towhee	132	9	67	18	106	63	49	49	97	41	31	17	23	--	39	8	104	26	2	30	4	12
Savannah Sparrow	344	18	--	12	1	20	9	8	--	8	--	2	4	--	19	29	16	40	--	--	1	--
LeConte's Sparrow	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	10	15	--	--	5	3	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--	--
Dark-eyed Junco	818	124	665	90	343	289	565	95	704	457	30	231	59	--	99	44	93	1.7M	10	36	225	260
Tree Sparrow	--	19	--	--	3	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	--	--	--	--	--	6	3	--	--	--	4	--	2	--	1	--	--	--	--	--
Field Sparrow	127	63	140	12	155	217	310	121	212	193	32	72	108	--	105	24	73	123	43	27	75	76
White-cr. Sparrow	19	35	4	--	2	31	7	126	38	5	37	36	--	--	1	--	32	--	7	31	8	10
White-th. Sparrow	1462	468	354	40	271	245	276	255	351	309	39	200	36	--	366	95	599	473	14	172	211	183
Fox Sparrow	62	27	1	2	13	2	6	3	32	11	17	--	--	--	10	--	--	9	--	2	--	--
Swamp Sparrow	350	467	8	5	93	72	98	44	59	98	--	--	--	--	55	26	22	14	--	--	6	5
Song Sparrow	381	169	129	3	135	214	166	129	169	214	8	66	38	--	96	62	263	321	21	27	119	67
Lapland Longspur	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Species	79	100	55	69	82	78	87	80	67	83	45	61	69	43	82	72	84	61	50	63	64	70

Grand Total Species - 132; *see information on counts; M=1,000; X=1,000,000.

Dickson, Helen and Henry Dinkelspiel, John H. Embury, Frances and Philip Gelwick, Billy C. Grimm, Russell A. Jones, Allan Larrabee, Jerald Ledbetter, Calvin Newman, George Payne, Ernest Restivo, Mary Seahorn, Alice Smith, Arlo and Noreen Smith, Richard G. Taylor, Martha Waldron, Wade Waller, Bobby Whittemore, Wendell L. Whittemore.

The Snow Goose was a blue form. The female Cape May Warbler had been present several weeks, seen by Mrs. EC, BBC, and others. Marsh Wren and LeConte's Sparrow seen by BBC. One of the towhees was a male of the spotted race which was in the same yard where an individual had occurred in 1952-53. Western Meadowlark was deleted; no details—MDW.

REELFOOT—20 Dec.; 07:00 to 16:00; a.m. clear, p.m. partly clear; temp. 26° to 38°; wind S, 10-15 mph; 12 observers in 7 parties, 1 at feeder; 49 party-hours (24 on foot, 20 by car, 5 by boat); 269 party-miles (32 on foot, 225 by car, 12 by boat).

Lula and Ben B. Coffey, Jr., Wendell Crews, Guy Hogg, Don and Gina Manning (compilers—103 Stonewall Circle, McKenzie 38201), T. David Pitts, Harry Smith, Noreen Smith, Bettie Sumara, Martha Waldron, Richard Wallace.

The Western Grebe, 3rd state record, was carefully identified by Manning and TDP. Two immature night herons were seen on count day. Sixteen of the Snow Geese were blue forms. Twenty-seven of the Bald Eagles were immature. Merlin, Orange-crowned Warbler, and Rose-breasted Grosbeak were deleted; the supporting details on these species were not totally convincing—MDW.
Seen in count period: Bobwhite, Turkey, Fish Crow.

HENDERSON—29 Dec.; 06:45 to 16:45; cloudy; temp. 46° to 48°; wind 5-10 mph; 5 observers; 27 party-hours; 75 party-miles.

Mrs. Eddie M. Carpenter (compiler—2966 Glengarry, Memphis 38128), Lula and Ben B. Coffey, Jr., Jerald Ledbetter, Franklin McCamey, Jr.

DOVER—2 Jan.; 06:30 to 17:00; rain most of day, heavy in a.m.; temp. 43° to 49°; 2 observers in one party; 114 miles (113 by car, 1 on foot.

John W. Sexton (compiler—Route 1, Dover 37058), Dr. Gary O. Wallace.

Seen in count period: Turkey Vulture, Red-shouldered Hawk, Bald Eagle (imm.), Common Snipe, Herring Gull, Phoebe, Ruby-crowned Kinglet.

CLARKSVILLE—27 Dec.; cloudy, light snow early; temp. 28° to 35°; 16 field observers in 5 parties.

Joe Allen, David Chiles, Mike Filson, Floyd Ford (compiler), Scott Gunn, Jerold Harris, Tony Mahoney, Bill, Gloris, Elaine and Dewitt Milliken, Beverly Mock, Millie Perry, Kathy Lee Robertson, Jack Sites, Marianne Stephens.

Ten feeder observers—May D. Darnell, Sara Ford, Mrs. Earl Hughes, Ellen Hutchison, Martha Kimbrough, Thurston Lee, Peggy Offen, Louise Roach, Ellen Walker (compiler), Priscilla Weathers.

The Northern Oriole, reported by Mrs. Hughes, spent the winter.

Seen in count period: Sharp-shinned Hawk, Turkey, Pine Siskin.

LAWRENCE COUNTY—27 Dec.; 06:30 to 17:00; cloudy in a.m., occasional drizzle in p.m.; temp. 35° to 38°; 6 observers in 4 parties and 2 feeder observers; party-miles (145 by car, 18 on foot); 34.5 party-hours.

Lloyd Clayton (compiler—Route 4, Lawrenceburg 38464), Helen Clayton, David Ihrie, Delton Porter, Paul Porter, Don Simbeck, Vivian Shields, M. D. Williams.

Seen in count period: Black Vulture, Cedar Waxwing, Turkey, Oldsquaw, White-winged and Surf Scoters identified at close range by MDW.

ASHLAND CITY—21 Dec.; 05:30 to 17:30; overcast a.m.; partly cloudy p.m.; temp. 21° to 33°; wind S, 10-16 mph; 16 observers in 7 parties; 61 party-hours (39 by car, 22 on foot); 269 party-miles (244 by car, 25 on foot).

Michael L. Bierly, Dwight Cooley, Dot and Paul Crawford, Craig Empson, Scott Gunn, Jerold Harris, Martha and John Herbert, Louise Jackson, Robert Milburn, Rocky Milburn (compiler—2923 Sharon Hills Circle, Nashville 37215), Chap Percival, Jack Sites, Pat Stallings, Lewis Winfrey.

Seen in count period: Common Loon.

Snow Goose was blue form. Osprey and Blue-gray Gnatcatcher carefully studied by MLB and D. Cooley. Common Yellowthroat deleted since it was identified by call alone (I am not convinced that this species can be safely separated from the Marsh Wrens by call—MDW).

COLUMBIA—27 Dec.; 05:00 to 18:00; overcast; temp. 37° to 42°; wind NW, 0-5 mph; 11 observers in 6 parties and 1 feeder; 40 party-hours (28 on foot, 12 by car); 320 party-miles (292 by car, 28 on foot).

Kenneth Anderson, Ed Byassee, William Fuqua, Daniel Gray, Jr., Daniel Gray, III, Olin Hotchkiss, Bedford Lockridge, Mary Lyles, George R. Mayfield, Jr. (compiler—999 Sunnyside Drive, Columbia 38401), Allen Pressnell, Diane Pressnell.

Seen in count period: Pintail, Black Vulture, Virginia Rail, Sora, Eastern Phoebe.

NASHVILLE—27 Dec.; 06:30 to 17:15; overcast, light snow in a.m.; wind NW, 5-10 mph; temp. 35° to 39°; 33 observers in 7 parties and 5 feeders; 73 party-hours (41 on foot, 32 by car) plus 37 hours at feeders; 316 party-miles (280 by car, 36 on foot).

Frances Abernathy, Clyde Anderson, David Anderson, Sue Bell, E. Bergstrom, Michael Bierly, Annella Creech, Milbrey Dugger, Evelyn and John Ellis, Charles Farrell, Clara Fentress, Katherine Goodpasture, Sarah Gordon, Ben Groce, John Herbert, Evelyn Herron, Evelyn Holt, Louise Jackson, Portia MacMillan, Margaret Mann, Ann Nichols, Corinne Oakes, Oscar Patrick, Virginia Price, Win Shaughnessy (compiler—6413 Currywood Dr., Nashville 37205), Pat Stallings, Anna Sulser, Ann Tarbell, Lawrence Trabue, Kenneth and Sara Walkup, Virginia Workman.

Seen in count period: Pied-billed Grebe, Gadwall, Surf Scoter.

HICKORY-PRIEST—3 Jan.; 04:30 to 17:30; overcast in a.m., p.m. partly cloudy; temp. 46° to 34°; wind NW, 5-10 mph; 24 observers in 5 parties; 64 party-hours (30 on foot, 34 by car); 251 party-miles (25 on foot, 226 by car).

Frances Abernathy, Ann Arnett, Sue Bell, Michael Bierly (compiler—2415 Crestmoor Rd., Nashville 37215), Dwight Cooley, Annella Creech, Milbrey Dugger, Frances Evans, Charles Farrell, Katherine Goodpasture, Scott Gunn, Jerold Harris, Bill Jones, Carol Knauth, Margaret Mann, Randy Martin, Rocky Milburn, Marge and Oscar Patrick, Betty Richards, Pat Stallings, Ann Tarbell, Lawrence Trabue, Louis Winfrey.

MURFREESBORO—27 Dec.; 08:00 to 17:00; overcast, light rain, windy; temp. 34° to 42°; 2 parties, 14 neighborhood observers; 50 miles by car.

Anne Hettish (compiler—108 Lawndale, Murfreesboro 37130).

Seen in count period: Gray Catbird.

LEBANON—27 Dec.; 00:01 to 19:00; overcast, light snow cover; temp. 30° to 35°; 3 observers in 2 parties and 3 observers at feeders; 22 party-hours (6 on foot, 16 by car) plus 24 at feeders; 100 party-miles (10 on foot, 90 by car).

Marilyn Burchett, Ray Pope, Frances Sellars, John Sellars, William Senter (compiler—313 West Hills Drive, Lebanon 37087), Sue Smith, William A. Smith.

Seen in count period: Sandhill Crane (unconfirmed report of 18 birds by TWRA personnel), American Woodcock, White-breasted Nuthatch, Brown Creeper, Evening Grosbeaks (just outside of count area), Fox Sparrow, Lincoln's Sparrow was deleted, no details—MDW.

MANCHESTER—28 Dec.; partly cloudy, calm; temp. 34° to 50°; 8 observers in 4 parties, 2 feeder observers; 69 party-hours (25 on foot, 34 by car), 285 party-miles (11 on foot, 274 by car).

Debra Acuff, Carroll Barr, Stanley Barr (compiler—Rt. 2, Box 475 A-1, Estill Springs 37330), Marjory Harper, Betty King, Glenn King, Sanford McGee, Anna Parker, Violet Wakeland, Monty Wanamaker.

COOKEVILLE—19 Dec.; 07:30 to 16:30; clear, windy; temp. 10° to 20°.

Eleanor Alexander, O. R. Alexander, Beulah Clark, Mr. and Mrs. Sam Coward, Dr. and Mrs. J. O. Cummins, Caprice Haile, Raymond High, Mr. and Mrs. Frazier Jaques, Amy Johnson, O. Ray Jordan, Elizabeth Killefer, Mildred Lassiter, Helen Lewis, Mr. and Mrs. T. B. Link, Dr. and Mrs. Sidney L. McGee, Mrs. J. T. Moore, Miser R. Richmond (compiler—519 N. Jefferson Ave., Cookeville 38501), Mr. and Mrs. Roy H. Sullivan, Thelma Tinnon, Mr. and Mrs. F. R. Toline, Chrissa Wendt, Florence Williams.

Wood Thrush and Magnolia Warbler were deleted—MDW.

CHATTANOOGA—21 Dec.; 05:00 to 22:00; overcast; temp. 27° to 36°; wind N, av. 13 mph; 22 observers in 12 parties, plus 7 feeder observers; 84 party-hours (40 on foot, 44 by car), plus 26 hours at feeders; 520 party-miles (37 on foot, 483 by car).

Lloyd and Betty Anderson, Jim and Frances Barnwell, Benton and Jeff Basham, Gary and Chris Bayne, Branson Block, Lloyd Davis, Jon and Nancy DeVore, Isabelle and Kenton Dickerson, Ken and Lil Dubke, Dr. Jack Freeman, Anne Gibson, David Grubbs, Daniel Jacobson (compiler—P. O. Box 6, Wildwood, GA 30757), Art Jones, Hodge and Gladys Lewis, J. Hunter Patterson, Kathy Philips, Lee Shafer, Gene Shiles, Carl Swafford, Dick Wodzenski.

Seen in count period: Blue-winged Teal, Redhead, Canvasback.

HIWASSEE—1 Jan.; 06:30 to 18:00; overcast; temp. 31° to 42°; wind E, 5 mph; 6 observers in 2 parties; 21½ party-hours (11½ on foot, 10 by car); 194 party-miles (9 on foot, 185 by car).

Kenton Dickerson, Lil Dubke, Daniel Jacobson (compiler—P. O. Box 6, Wildwood, GA 30757), Lemuel Jacobson, Ruth Jacobson, Roger Woodruff.

Pectoral Sandpiper was deleted; no details—MDW.

KNOXVILLE—28 Dec.; 07:00 to 17:30; mostly clear; temp. 37° to 49°; 22 observers in 11 parties; 73½ party-hours (45½ on foot, 28 by car); 488½ party-miles (46½ on foot, 442 by car).

James Campbell, Dr. Howard Chitwood, Rob Harris, Dr. Robert Harris, Don Heiser, James Holt, Beth Lacy, Mrs. George McGown, Allison McNutt, Bill McNutt, Gary Muffly, Charles P. Nicholson, Holly Overton, Paul Pardue, Diane Rook, Paul Rook, Ken Sanders, Mabel Sanders, A. Boyd Sharp (compiler—245 Peters Rd. Knoxville 37919), Dr. James Tanner, Bill Williams, Irene Williams.

Long-billed Marsh Wren seen by CPN and earlier by ABS and MDW; House Finches by Harris and later by many others.

GREAT SMOKY MOUNTAINS NATIONAL PARK—4 Jan.; 06:00 to 17:30; clear to partly cloudy, light snow in a.m., ground covered in higher elev.; temp. 9° to 30°; wind 1-7 mph, but up to 18 mph in higher elev.; 44 observers in 21 parties, plus 4 observers at feeders; 162 party-hours (115 on foot, 47 by car), plus 32 at feeders; 541 party-miles (138 on foot, 403 by car).

Fae Andrews, Carolyn Brown, Kay Bacon, Susan Bretton, Winnifred Brown, Nanci Buss, Stan and Gwen Canter, Glenn Cardwell, Dr. Howard Chitwood, Don DeFoe (compiler—G.S.M.N.P., Gatlinburg 37738), Jay DeFoe, Lori DeFoe, Maurice Grigsby, Julie Hardin, J. H. and S. B. Harris, David Highbaugh, Bill Hooks, Dr. J. C. Howell, Tony Koella, Henry Lix, Susy Lix, Bill and Allison McNutt, Gary Muffly, Charles P. Nicholson, Mary Noel, Louise Nunnally, Holly Overton, J. B. Owen, Truett Patterson, Ann Ragan, John and Nancy Rennie, Gail Satterfield, Terry Satterfield, Boyd and Mary Jane Sharp, Hugh and Lillian Smathers, Alan Smith, Arthur Stupka, Dr. James Tanner, Bill and Irene Williams, Morris Williams, Clara Mae Wodtke.

White-crowned Sparrows were deleted, observer not seasoned—MDW. Carolina and Black-capped Chickadees were not separated in the tally.

GREENEVILLE—28 Dec.; 07:30 to 17:00; clear to cloudy; temp. 34° to 52°; wind, 0-6 mph; 9 observers.

Mr. and Mrs. O. C. Armitage, Mr. and Mrs. King Gaut, Wilma Irvine, Boris Kondratieff, Mr. and Mrs. Richard Nevius (compiler—Route 6, Greeneville 37743), Mrs. John Speer.

KINGSPORT—3 Jan.; 07:00 to 19:00; overcast, fog, light rain in a.m.; temp. 45° to 30°; 8 observers in 6 parties; 45 party-hours (30 by foot, 14 by car, 1 by barge); 107 (16 on foot, 90 by car, 1 by barge).

Tom Bowman (compiler—Bays Mountain Park, Route 4, Kingsport 37660), Teresa Brown, Joe and Tom Finucane, Eugene Scott, Arthur Smith, Ann Switzer, Howard Young.

ELIZABETHTON—20 Dec.; 06:45 to 17:30; clear in a.m., partly cloudy in p.m. and windy, 5-15 mph, trace of snow above 3000 ft.; 13 observers in 5 parties; 287 party-miles (271 by car, 16 on foot); 47 party-hours (28 by car, 19 on foot).

John Adams, Joy Dillenbeck, Martha Dillenbeck, Glen Eller (compiler—Rt. 3, Grandview Terrace, Elizabethton 37643), Harry Farthing, Sally Goodin, Lee Herndon, Barney Keffer, Richard Lewis, John Martin, Ed Schell, John Wright, Keith Young.

BRISTOL—27 Dec.; 07:30 to 18:00; overcast, intermittent rain and snow, 0-1 in. of snow; temp. 30° to 34°; wind W-SW, 2-10 mph; 13 observers in 6 parties and 2 at feeders; 43½ party-hours (12½ on foot, 26 by car, 5 by boat) plus 10 at feeders; 313½ party-miles (18½ on foot, 235 by car, 60 by boat).

Rockwell Bingham (compiler—216 Melody Lane, Bristol 37620), Rosemary Bingham, Wallace Coffey, Dot Crawford, Paul Crawford, Martha Dillenbeck, Joy Dillenbeck Glen Eller, John Gray, Ken Hale, Conrad Ottenfeld, Charles Smith, Angela Wilson, Diane Wilson, John Wright.

The Cape May Warbler seen by Crawfords and Wilsons was present for several days prior to count. Black-capped Chickadees were deleted; although this species probably occurs in this area occasionally in the winter, field identification is not reliable—MDW.

ROAN MOUNTAIN—29 Dec.; 07:30 to 18:30; clear in a.m., overcast in p.m.; temp. 30° to 46°; wind 10-15 mph; trace to 3 in. snow above 5,000 ft.;

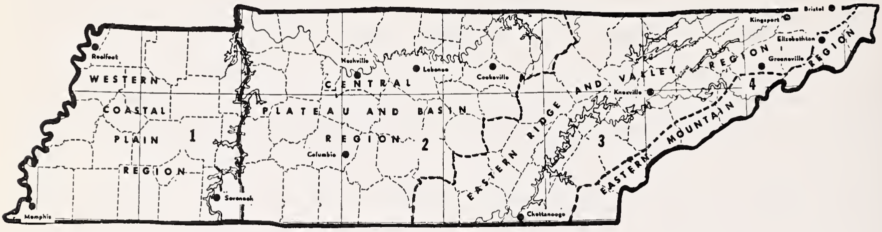
6 observers in 3 parties; 102 party-miles (94 by car, 8 on foot); 21 party-hours (13½ by car, 7½ on foot).

Paul Crawford, Glen Eller (compiler—Rt. 3, Grandview Terrace, Elizabethton 37643), John Gray, Jake Slonaker, Angela Wilson, Diane Wilson.

Only 5 species found above 5,000 ft. elevation. American Kestrel (1), Ruffed Grouse (1), Screech Owl (2), Belted Kingfisher (1), Downy Woodpecker (6), Blue Jay (5), Common Raven (2), Common Crow (16), Carolina Chickadee (6), Tufted Titmouse (9), White-breasted Nuthatch (5), Red-breasted Nuthatch (2), Carolina Wren (1), Eastern Bluebird (4), Golden-crowned Kinglet (1), Starling (5), House Sparrow (9), Cardinal (2), Evening Grosbeak (2), Purple Finch (1), American Goldfinch (1), Dark-eyed Junco (17), Field Sparrow (8), Song Sparrow (16). Total 24 species.

THE SEASON

Fred J. Alsop, III, *Editor*



WINTER SEASON: 1 November - 15 March

This was a rather mild winter for Tennessee and not a notable one for Northern finches. It did, however, produce many most interesting records of late lingering warblers in all the reporting regions as well as observations of some waterfowl, birds of prey, and several songbirds not commonly seen in the State.

This is our best season for seeing waterfowl and "good finds" for T.O.S. birders included 15 Whistling Swans in the Western Coastal Plain and White-fronted Geese here and in the Central Plateau and Basin. The latter region also produced the third state record for Barnacle Geese with two being sighted (You may have noted the increase in southern sightings of unusual North American and Old World waterfowl species and the discussions of their possible origins—wild or escapes from fanciers—in many ornithological journals). Oldsquaw were reported from all regions and scoters from the Central Plateau and Basin and the Eastern Mountain Regions. This last region also had a Red-throated Loon.

Eagles of both species were seen and Northern raptors were represented in the reports by Rough-legged Hawks in the Western Coastal Plain and the Central Plateau and Basin. A Goshawk, reported in the previous "Season," was still present through this period in the Eastern Mountain Region. Several Horned Owls were found nesting and three Short-eared Owls wintered at the Smyrna airport.

There were several reports of Sandhill Cranes in the Central Plateau and Basin region with a migratory movement apparently under way in early December. Two Black-capped Chickadees were carefully observed by Diane Wilson as they came to a feeding station at her Bristol home in the company of Carolina Chickadees. The occurrence of these Northern—or, in Tennessee, high altitude—species at this location is most unexpected. Many late dates for several species of warblers were contributed including a wintering Yellow-breasted Chat in Covington in the Western Coastal Plain.

Lapland Longspurs were found in the Western Coastal Plain and the Central Plateau and Basin; Snow Buntings in Nashville and on Roan Mountain; Sprague's Pipit in the Western Coastal Plain and a sub-adult Harris' Sparrow in the Central Plateau and Basin Region. You'll find these records and much more useful information about the avafauna of Tennessee in these following pages of the Winter "Season."

WESTERN COASTAL PLAIN—*Loon-Crow:* Common Loon: 11 Dec. (2) Pin Oak Lake, NTSP (BBC, LCC). Horned Grebe: 11 Nov. (1) HPL (VH). Cattle Egret: 7 Mar. (1) M (HHD). *WHISTLING SWAN:* 3 Jan. (15) until 24 Jan. HNWR (JG, JL). *WHITE-FRONTED GOOSE:* 3 Jan. (1), 25 Jan. (1) HNWR (JL). *OLDSQUAW:* 27 Dec. (2) Ft. Pillow SP (HD, NS, MW, GP). Greater Yellowlegs: 7 Mar. (1) M (HHD). Sharp-shinned Hawk: 28 Dec. (1) M (HD). *ROUGH-LEGGED HAWK:* 21 Dec. (1) M (BBC, CN, JL). Golden Eagle: 4 Jan. (1) HNWR (JL). Least Sandpiper: 20 Dec. (1) Tiptonville Sewerage Pond (BBC, LCC). Great Horned Owl: 29 Dec. (1) M (DV), the owl was first sighted on a nest and two young have been observed (19 Mar.) Fish Crow: 27 Dec. (11) G (HD, NS, MW, GP).

Nuthatch-Longspur: Red-breasted Nuthatch: this species was fairly common in the Memphis area this season with 23 on the Christmas Count. The Henderson Christmas Count had a total of 10 (MEC). *HOUSE WREN:* 21 Dec. (2) on Christmas Count, M, 27 Dec. (1) Ft. Pillow SP (HD, NS, MW, GP). Bewick's Wren: 22 Feb. (1) H, DRNWR (JL). Short-billed Marsh Wren: 21 Dec. (1 each) 2 locations, M Christmas Count (BBC). *SPRAGUE'S PIPIT:* 31 Jan. (1) G (BBC, LCC). Orange-crowned Warbler: 24 Jan. thru 11 Feb. (1) R (MEC). Cape May Warbler: 2 Dec. thru 3 Jan. R (MEC, BBC, LCC), this is the first West TN winter sighting. Black-throated Green Warbler: 7 Nov. and 9 Nov. M (HD). Palm Warbler: 22 Feb. (1) H, DRNWR (JL). Yellow-breasted Chat: 25 Nov. thru 6 Dec. (1) C (AS). Rufous-sided Towhee (Spotted Race): 12 Dec. thru 25 Dec. Gn (MCS). Dickcissel: 27 Dec. (1) Ft. Pillow SP (HD). Evening Grosbeak: 29 Dec. (24) H (MEC), 19 Feb. (1) N (RF). Chipping Sparrow: 5 Dec. (3) M (MW). *LAPLAND LONGSPUR:* 31 Jan. (200) 1 Mi. south of Owl City, Lake Co., 1 Feb. (600) west of Phillipy, Lake Co. (BBC, LCC).

Locations: NTSP—Natchez Trace State Park; M—Memphis; HNWR—Natchie National Wildlife Refuge; HPL—Herb Parsons Lake, Fayette Co.; Ft. Pillow SP—Ft. Pillow State Park, Lauderdale Co.; G—Golddust, Lauderdale Co.; H, DRNWR—Hustburg, Duck River National Wildlife Refuge; R—Raleigh; C—Covington; Gn—Germantown, East Shelby Co.; H—Henderson.

Observers: BBC—Ben B. Coffey; LCC—Lula C. Coffey; VH—Van Harris; JG—Joe Guinn; JL—Jerald Ledbetter; HD—Helen Dinkelspiel; NS—Noreen Smith; MW—Martha Waldron; GP—George Payne; CN—Cal Newman; DV—Dave Vance; MEC—Mrs. Ed Carpenter; HHD—Henry and Helen Dinkelspiel; MCS—Mrs. Charles Seahorn; RF—Romena Fuller.

MARTHA WALDRON, 1626 Yorkshire Dr., Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Grebes-Yellowlegs:* Horned Grebe: 17 Jan. (150) WR (Branson Block, DRJ). Great Egret: 23 Nov. (1) CL (CE, KJM). Yellow-crowned Night Heron: 27 Feb. (1) G (DC, PC), Compiler is unaware of other winter records for this species. *BARNACLE GOOSE:* 24-27 Jan. (2) CCNWR (MLB), 3rd State record. American Bittern: 9 Nov. (1) BV (MLB). *WHITE-FRONTED GOOSE:* 24-27 Jan. (2) HP (DC, PC); 25 Jan. (1 imm.) CCNWR (Gary Bayne, DRJ). Blue-winged

Teal: 27 Feb. (15) G (DC, PC). *OLDSQUAW:* bird reported last period still present thru 7 Dec. (MLB); 18 Jan. (1) WR (Violet Hite, MW). Surf Scoter: 1 bird of the 2 reported last period, remained thru 9 Dec. (MLB). Sharp-shinned Hawk: 5 reports during period. Cooper's Hawk: 7 Feb. (1) I-40 and 231 (CE, RJM); 20 Feb. (1) OH (SF, WF). *ROUGH-LEGGED HAWK:* 11 Jan. (1) Ashland City (Helen and Henry Dinkelspiel). Golden Eagle: 17 Jan. (3 adults) Auburntown (DRJ); 27 Jan. (3 imm.) Auburn Rd. (MW). Bald Eagle: 17 Nov. (1 imm.) BV (RJM); 21 Dec.-21 Feb. (1) CL (Nash. TOS). Osprey: one bird wintered at CL. Ring-necked Pheasant: 25 Jan. (1) Cowan (Effie Boyd). *SANDHILL CRANE:* 19 Nov. (25) Franklin Co. (Edwina Morrison, Mr. and Mrs. B. M. Jaco); 3 Dec. (5) Cookeville (Beulah Clark, BJ); 7 Dec. (28) HP (WT); 9 Dec. (12) OHL (WT); 9 Dec. (35) Murfreesboro (Richard Hunter). American Woodcock: 7 Dec. thru period (1-8) Shelby Bottoms (MPS). Black-bellied Plover: 25 Oct.-9 Nov. (1) BV (MLB, Larry Gates). Solitary Sandpiper: 9 Nov.-27 Nov. (1) BV (MLB, RJM). Greater Yellowlegs: 1-8 Nov. (8) CL (RJM); thru 30 Nov. (1) BV (MLB); 28 Feb. (1) NA (MPS). Lesser Yellowlegs: 13 Mar. (1) BV (MPS).

Owls-Bunting: Barn Owl: 2 Feb. (1, dead) I-40, 13 mi. W. of Nashville (Ken and Lil Dubke). Great Horned Owl: 26 Dec. (1 ad.) on nest. Five active nests during period, Five Points (MDW). *SHORT-EARED OWL:* 27 Nov.-21 Feb. (3) Smyrna Airport (Margaret Mann) Carolina Chickadee: 15 Mar. (nest/one egg) NA (Sue Bell). House Wren: 9 Nov. (1) BV (MLB). Bewick's Wren: 4 reports during period. Short-billed Marsh Wren: 9 Nov. (1) BV (MLB). Swainson's Thrush: 23 Nov. (1) OH (SF, WF)—very late. Blue-gray Gnatcatcher: 7-9 Nov. (1) OH (SF, WF). Cedar Waxwing: 2 Nov. (200) Radnor Lake (DRJ). Black-and-white Warbler: 28 Nov.-8 Dec. (1) Ft. Negley (Chap Percival). Orange-crowned Warbler: 9 Nov. (1—banded) Basin Springs (KAG). Palm Warbler: 3 Jan. (2) NA (RJM, MPS). Northern Oriole: mid-Dec.-12 Mar. (1) NA (Mr. and Mrs. Herbert Benson, KAG). Tree Sparrow: 8 Jan. (1) G (DC, PC); 18 Jan. (21) Smith Co. (BJ); 7 Feb. (12) BV (SF, WF). Chipping Sparrow: 18 Dec. (1) Lawrence Co. (Lloyd Clayton). *HARRIS' SPARROW:* mid-Dec.-1 Mar. (1) sub-adult, NA (DRJ, Adam Mitszel). *LAPLAND LONGSPUR:* 16, 17 Nov. (1) BV (MLB, RJM). *SNOW BUNTING:* 16 Nov. (2) BV (MLB).

Locations: B—Byrdstown; BV—Buena Vista; CCNWR—Cross Creek National Wildlife Refuge; CL—Cheatham Lake; G—Gallatin; HP—Hunter's Point; NA—Nashville Area; OH—Old Hickory; OHL—Old Hickory Lake; WR—Woods Reservoir.

Observers: MLB—Michael Bierly; DC—Dot Crawford; PC—Paul Crawford; CE—Craig Empson; SF—Sally Fintel; WF—William Fintel; KAG—Katherine Goodpasture; DH—Dave Hassler; RH—Robbie Hassler; DRJ—Daniel Jacobson; BJ—Bill Jones; RJM—Rocky Milburn; MPS—Pat Stallings; WT—Willie Taylor; MDW—Morris Williams; MW—Mary Wood.

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EASTERN RIDGE AND VALLEY REGION—One word seems to best describe this winter season—exciting. Observers across the region reported not only unusual species such as American Avocet, Merlin, Peregrine Falcon, and LeConte's and Harris' Sparrows, but also recorded winter dates for the Osprey, Pectoral Sandpiper, Tree Swallow, Black and white and Cape May Warblers, Rose-breasted Grosbeak, and Indigo Bunting.

Boreal species staged a bumper invasion of the region, including both species of crossbills. House Finches spent most of the winter in Knoxville and Chattanooga reported both Surf and White-winged Scoters.

Migration was in progress before the end of the season with the usual martins and swallows, and early records of the American Bittern.

Loon-Merganser: Common Loon: sporadically through period (1-6) ChL (KD, DRJ); 15 Feb. (20) BTWSP (DRJ); 5 Dec. (7) BL (MD, SG). Horned Grebe: 10 Dec. (28) BL (MD, SG, HD); 14 Feb. (50) BTWSP (DRJ). Pied-billed Grebe: through period (25-35) SP (DKD). Double-crested Cormorant: six dates from 8 Nov.-15 Feb. (1-9) HRA (KLD, DKD, DRJ). Great Blue Heron: 1 Dec. (111) HRA (KLD); 31 Jan. (23) JCo (TK). Green Heron: three Nov. dates (AM, HRA); 14 Dec. (1) AM (KLD, DRJ). Great Egret: 29 Nov. (1) DL (JCH). Black-crowned Night Heron: 9 Nov. (1) FLL (JCH); 11 Mar. (9) KP (RL). *AMERICAN BITTERN:* 14 Feb. (1) KP (FJA); 14 Feb. (1) AM (DRJ). Whistling Swan: 25 Nov. (1) NL (DRJ, KLD). Snow Goose: 3, 4 Nov. (1), (2, blue morph) HRA (KLD). Blue-winged Teal: 23 Dec. (2) SP (DKD); 1 Mar. (1) SB (KLD). American Wigeon: 1 Mar. (500) NL (DKD). Redhead: 8 Mar. (40) ChL (KLD). Canvasback: 6 Feb. (7) PSF (JGH); 8 Mar. (40) ChL (KLD). Greater Scaup: 21 Feb. (350) BTWSP (KLD). Lesser Scaup: 23 Nov. (500) NL (DRJ, DKD, LD, LMJ). Bufflehead: 23 Nov. (60) NL (DKD, LD, DRJ, LMJ). Oldsquaw: 23 Nov. (1) NL (LD, DKD, DRJ, LMJ); 5 Feb. (1) BL (MD, SG). *WHITE-WINGED SCOTER:* 9 Feb.-1 Mar. (1-4) BTWSP (KLD, et al); 15 Feb. (5) WBL (KLD). *SURF SCOTER:* 4 Nov. (1) BTWSP (KLD). Common Merganser: 1 Dec. (2) ChL (KLD); 15 Feb. (1) HRA (DRJ). Red-breasted Merganser: 23 Nov. (150) NL (LD, DKD, LMJ, DRJ).

Vulture-Owl: Turkey Vulture: 8 Nov. (60) HRA (KLD). Sharp-shinned Hawk: nine records during period CH (KLD, DRJ); 10 Nov., 2 Dec. (1) PSF (JGH); 22 Nov., 21 Feb. (1) NoL (JCH); 28 Feb. (1) JC (DL). Cooper's Hawk: six records JC (SG, JS, ES, DL); two records CH (LBA, BB); 16 Dec. (1) Oak Ridge (JMC). Golden Eagle: 12 Nov. (1 adult), 24 Feb. (1 imm.) SeV (LSF). Bald Eagle: 1 Dec. (1 adult), 2 Dec. (1 imm.) HRA (Wilford Caraway fide KLD); 31 Jan., 27 Feb. (1 adult) NoL (JCH); 15 Feb. (3 adults) WBL (KLD); 15 Feb. (3 adults) HRA (DRJ); 21 Feb. (2 adults) NL (DRJ, DKD). *OSPREY:* 19 Nov. (1) MB (Mary Steel fide KLD); 22 Nov. (3) NL (KP); 12 Dec. (1) MB (Jon DeVore); 9 Mar. (1) AM (KLD). *PEREGRINE FALCON:* 22 Nov. (1 adult) NL (LS). *MERLIN:* 8 Feb. (1) KCo (Maurice Grigsby). Sandhill Crane: seven records 22 Nov.-4 Mar.; 22 Nov. (70) NL (KP); 9 Jan.-end of period (1) KP (FJA). King Rail: 9 Nov. (1) HRA (BS, DRJ). Virginia Rail: 9 Nov. (3) HRA (BS, DRJ); 7 Dec. (1) Westal Exit, I-40 near Rockwood (Mike Bierly, Margaret Mann, Paul Crawford, Betty Richards, DRJ); 23 Jan. (1) AM (DRJ). Killdeer: 8 Mar. (nest with 4 eggs) KCo (GCM). American Golden Plover: 4 Nov.

(1) HRA (KLD); 11 Nov. (2) PSF) (JCH). Black-bellied Plover: 8-14 Nov. (1-4) HRA, SB (KLD). American Woodcock: 14 Dec. (8, beeping and courtship flight) AM (KLD, DRJ). Common Snipe: highest regularly wintering numbers recorded at SB (100-200), 1 Mar. (250) SB (KLD); 8 Mar. (307) SB, HRA (KLD). Spotted Sandpiper: 23 Nov. (2) BL (PR, JS). Greater Yellowlegs: 3 Nov. (17) HRA (KLD); 8 Nov. (1) NoL (JCH); 29 Feb. (1) SB (LD). Lesser Yellowlegs: 12 Nov. (1) SB (LD). *PECTORAL SANDPIPER:* up to 5 lingered late, last recorded 1 Jan. (1) HRA (LD, RW). Least Sandpiper: 27 Jan. (61) SB, HRA (KLD). Dunlin: 27 Jan. (190) SB (KLD); 31 Jan. (105) JCo (TK). *AMERICAN AVOCET:* 22 Nov. (1, bird with mangled leg) JC (Barney Keefer fide MD). Herring Gull: 19 Jan. (45) ChL (KLD). Ring-billed Gull: 15 Feb. (250) BTWSP (DRJ). Bonaparte's Gull: 7, 8 Dec. (5) BL (GE, LRH, RL); 19 Jan. (38) HRA (KLD). Yellow-billed Cuckoo: 1 Nov. (1) AM (DRJ). Barn Owl: through period (2 active pairs) JC (RL, DL). Great Horned Owl: 14 Feb. (nest, 2 eggs) Signal Mtn. (Kenneth Miller fide DRJ). *SHORT-EARED OWL:* 25 Nov. (1) NL (DRJ).

Lark-Sparrow: Horned Lark: 1 Dec. (25) HRA (KLD). *TREE SWALLOW:* 19 Jan. (1) HRA (KLD). Barn Swallow: 13 Mar. (2) NL (DRJ). Cliff Swallow: 13 Mar. (2) NL (DRJ). Purple Martin: 3 Mar. (4) JCo (Clarence Burris). Brown-headed Nuthatch: through period (2) McD (Nat Halverson, et al). House Wren: 1 Nov. (1) AM (DRJ). Bewick's Wren: 16 Dec. (1) AM (KLD); 3 Jan. (1) AM (DKD). Long-billed Marsh Wren: 9 Nov. (1) HRA (BS, DRJ, et al); 20 Dec. (1) KCo (MDW, BS, CPN). Short-billed Marsh Wren: 28 Nov.-29 Dec. (1-3) NL (DRJ, et al); 3 Dec. (1) AM (DRJ). Water Pipit: 8 Nov. (75) NoL (JCH); 7 Feb. (75) TCA (GE, LRH, DL, RL, ES). *BLACK-AND-WHITE WARBLER:* 7-14 Dec. (1) JC (DL). *CAPE MAY WARBLER:* 22 Nov. (1) K (BAM); 24 Dec. (1) JC (PR). Pine Warbler: 26 Jan. (1 singing) HRA (LD). Palm Warbler: 1 Nov. (1) AM (DRJ); 8 Feb. (1) NL (DRJ, LMJ). *BREWER'S BLACKBIRD:* 11 Jan. (3) TCA (GE, LRH). *ROSE-BREASTED GROSBEAK:* 27 Nov. (7), 10 Dec. (5) WW (KP); 18 Dec.-22 Feb. (1) ACo (MT). *INDIGO BUNTING:* 1 Nov. (1) AM (DRJ); 20 Jan.-end of period (1) ACo (MT). Evening Grosbeak: flocks reported from all parts of region, max. 30 Nov. (100) Oneida (Mrs. H. M. Leeds). Purple Finch: 16 Nov. (200) JC (JS). *HOUSE FINCH:* 25 Dec.-end of period (max. of 14 at feeder) K (Robert and Laveda Harris). Pine Siskin: small flocks throughout region, max. 2 Nov. (100) K (Ed and Brownie Griffith). Red Crossbill: 23 Nov. (1) NL (LD, DRJ, et al); 29 Nov. (12) K (Harold andd Edith Cress); 5 Feb. (6) K (Carl Swafford); 6, 12 Feb. (12) Chickamauga Battlefield, Ga. (KD); 29 Feb. (8) McD (GE, LD). *WHITE-WINGED CROSSBILLS:* 5-7 Nov. (12-15) Etowah (Harry Farthing). *LECONTE'S SPARROW:* 5-15 Dec. (1) NL (DRJ, GLB, et al). Vesper Sparrow: 10 Nov. (4) PSF (JGH); 22 Nov. (24) AS (DL); 14 Dec. (6) AM (DRJ). *HARRIS SPARROW:* 2 Feb.-end of period (1) White Pines (TK, et al). White-crowned Sparrow: 12 Dec. (100) Jonesboro (SG, MD); 13 Feb. (250) Telford (SG, MD).

Locations: ACo—Anderson County; AM—Amnicola Marsh; BL—Boone Lake; BTWSP—Booker T. Washington State Park; CH—Chattanooga; ChL—Chickamauga Lake; DL—Douglas Lake; FLL—Fort Loudon Lake; HRA—Hiawassee River Area; JC—Johnson City; JCo—Jefferson County; K—Knoxville; KCo—Knox County; KP—Kingsport; McD—McDonald; MB—Moccasin Bend; NL—Nickajack Lake; NoL—Norris Lake; PSF—U. T. Plant Science Farm; SB—Savannah Bay; SeV—Sequatchie Valley; SP—Shawhon Pond, Chattanooga; TCA—Tri-Cities Airport; WBL—Watts Bar Lake; WW—Wildwood, Ga.

Observers: FJA—Fred J. Alsop; LBA—Lloyd and Betty Anderson; BB—Benton Basham; GLB—Gary L. Bayne; JMC—Jim Campbell; DKD—D. Kenton Dickerson; HD—Helenhill Dove; KLD—Ken and Lil Dubke; KD—Ken Dubke; LD—Lil Dubke; MD—Martha Dillenbeck; GE—Glen Eller; SG—Sally Goodin; JCH—J. C. Howell; JGH—James G. Holt; LRH—Lee R. Herndon; DRJ—Daniel R. Jacobson; LMJ—Lemuel M. Jacobson; TK—Tony Koella; DL—Dick Lura; RL—Richard Lewis; BAM—Bill and Alicyn McNutt; GCM—Gary and Cynthia Muffly; CPN—Charles P. Nicholson; KP—Kathy Phillips; PR—Pete Range; BS—Boyd Sharp; ES—Ed Schell; JS—Jake Slonaker; LS—Lee Shafer; LSF—Lee Shafer Family; MT—Margaret Thompson; MDW—Morris D. Williams; RW—Roger Woodruff.

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EASTERN MOUNTAIN REGION—The overall weather picture was that of above average temperature and below average rainfall through out the period. January was the only month with cold days, with several in the low teens during the middle of the month. February had above average temperatures which carried over into the first week of March. The rainfall for the entire period was below average. The early warm temperatures did not seem to effect the bird movement to any significant degree.

Several unusual waterfowl sightings were noted and several late warblers were seen. The most noteworthy occurrence was that of the Goshawk which was first reported during the last period. The bird apparently spent the winter in a very remote area near the upper end of Watauga Lake, being sighted in every month of the period. One Snow Bunting was reported from Roan Mountain.

Loon-Scoter: Common Loon: thru Nov. and Dec. with (12) on 22 Nov. RC (LRH), none reported since 10 Dec. (unusual). *RED-THROATED LOON:* 15 Nov. (2) RC (GW, DL); 17 Nov. (1) RC (MD, SG). Horned Grebe: 1st returned 15 Nov. (6) WatL (GW); 7 Feb. (50+) RC (LRH, ES). Canada Goose: 12 Dec. (1) WibL (RL). Gadwall: 29 Nov. (1) WatR (RL); 24 Jan. (2) RC (LRH, ES). Pintail: 15 Nov. (1) WibL (RL, GW); 20 Dec. (5) WatR (GE, HF); 7 Feb. (2) RC (GE, HF). Green-winged Teal: 22 Nov. (1) WibL (GW, DL); 29 Nov. (1) WibL (MD, SG, RL); 1 Jan. (1) WibL (GE). Blue-winged Teal: 1st returned 6 Mar. (2) RC (GE, HF). Northern Shoveler: 16 Nov. (2) WatL (MD, SG). Canvasback: 15 Nov. (2) RC (GW, DL); 21 Jan. thru 7 Feb. (1-4) RC (ETOS). *OLDSQUAW:* 17 Jan. (12) WatL (LRH). Ruddy Duck: 22 Nov. (3) WatL (GW, DL); 20 Dec. (1) WibL (GE, HF); 19-20 Feb. (1) WibL (RL). Black Vulture: Dec. thru Feb. (15-25) Bri (DW et al) in roost with 125+ Turkey Vultures. *SURF SCOTER:* 27 Nov. (1) WibL (GE). *WHITE-WINGED SCOTER:* 17, 31 Jan. (3) RC (LRH, ES).

Hawk-Vireo: GOSHAWK: 14 Nov., 10 Jan., 18 Feb. (1) RC (PR); 6 Mar. (1) RC (LRH, GE). Sharp-shinned Hawk: 18 Dec. (1) Eliz. (LRH); 20 Dec. (1) SV (GE, HF). Cooper's Hawk: 20 Dec. (1) SV (GE, HF); 21 Feb. (1) Eliz. (HF); 1 Mar. (1) Eliz. (GE). American Woodcock: 1st returned 11 Feb. (1 performing) Milligan (GW). Spotted Sandpiper: 1st returned 15 Mar. (1) SV (DL). Bonapart's Gull: 27 Nov. (2) WatL (MD, SG). Barn Owl: 2 active pair thru period (GE, GW et al). Great Horned Owl: 10 Jan. (1) WatL (PR); 2 Mar. (1) Bri. (Judy Abbott); 13 Mar. (1 banded) Bri. (DW, Wallace Coffey). Barred Owl: 24 Jan. (1) RC (LRH, ES). Common Flicker and Yellow-bellied Sapsucker: seemed to decline in numbers since mid Dec. thru end of Feb. (reason ?). Raven: 1-3 regular thru-out period RM (ETOS). *BLACK-CAPPED CHICKADEE:* 21 Nov.-29 Feb. (2) Bristol (Diane Wilson). Red-breasted Nuthatch: none at higher elevation (poor cone crop). Hermit Thrush: 29 Nov. (3) WatL (LRH, GE, GW); 4 Dec. (1), 17 Jan. (2) RC (LRH, ES); 15 Feb. (1) Eliz. (GE). Cedar Waxwing: 24 Jan. thru 7 Feb. (75+) RC (ETOS). Solitary Vireo: 17 Nov. (1) RM (SG, MD) (late date).

Warbler-Bunting: Cape May Warbler: 23 Nov. thru 28 Dec. (1 at feeder) Bri. (DW et al). Pine Warbler: 13 Mar. (2) SV (JS). Palm Warbler: 10 Nov. (2), 23-24 Nov. (1), 21-22 Feb. (1) at feeder in Bri. (DW). Rusty Blackbird: 1st returned 7 Mar. (5) SV (GE). Evening Grosbeak: 1st returned 1 Nov. (48) RC (Fred Alsop), 7-10 small flocks and 1 large flock (75-80) at feeders in area (ETOS). Purple Finch: 1st returned 1 Nov. (8) RC (Fred Alsop). Red Crossbill: 22 Nov. (3) WatL (GW, DL), 20 Dec. (21) Cove Ridge (LRH, JM), 1 Jan. (7) WatL (GE), 31 Jan. (4) Cove Ridge (GW, DL). Chipping Sparrow: last fall record 10 Nov. (2) Bri. (Rockwell Bingham). White-crowned Sparrow: 20 Dec. (8) and 17 Jan. (3) Bri. (Rockwell Bingham). Fox Sparrow: 21 Nov. (3) RC (GW, DL, JS, RL), 31 Jan. thru 28 Feb. (1 at feeder) Eliz. (HF), 1 Mar. thru 9 Mar. (1 at feeder) Bri. (Judy Abbott). *SNOW BUNTING:* 16 Nov. (1) RM (RL).

Locations: Bri—Bristol; Eliz—Elizabethton; RC—Roans Creek; RM—Roan Mountain; SV—Siam Valley; WatL—Watauga Lake; WatR—Watauga River; WibL—Wilbur Lake.

Observers: MD—Martha Dillenbeck; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee Herndon; DL—Dick Lura; RL—Richard Lewis; JM—John Martin; PR—Pete Range; ES—Ed Schell; JS—Jake Slonaker; DW—Diane Wilson; GW—Gary Wallace; ETOS—Elizabethton Chapter T.O.S.

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REVIEWS

VOICES OF NEOTROPICAL BIRDS—Dr. John William Hardy, Curator in Ornithology, Florida State Museum. Very appropriately, dedicated to Irby Davis, long-time expert on Middle-American birds and their songs.

This 12-inch 33-1/3 ips LP contains the songs and/or calls of 45 species, plus others named in the background. Recorded in Mexico and (10 species) Central and South America however, all but 5 species are found in Mexico. Those of special interest should be the Three-wattled Bellbird, two owls, four jays, and four nightingale-thrushes. Dr. Hardy has made an extensive study of these jays and thrushes. The general practice in arranging most LP records of bird vocalizations, has been to limit comment to a bare minimum, with most data on the jacket. The author here has something to tell us and his informal commentary adds to the value of the LP. The selection and arrangement emphasizes biological aspects—behavioral, ecological, and evolutionary. If you have no special interest in northern tropical birds of the Americas, the commentary will still be instructive and of general interest.

The LP ("Ara-1") can be ordered directly ($6) from J. W. and Carol K. Hardy, 1615 N.W. 14th Ave., Gainesville, Florida 32605. It is also listed by Audubon Bookcase, Croton-on-Hudson, N. Y. 10520.

Ben B. Coffey, Jr.

THE LIFE OF BIRDS. 1975. Second Edition. By Joel Carl Welty. W. B. Saunders, Philadelphia. 623 p. $18.50. — This basic college text was first published in 1962. Thirteen years later, with this revision, Welty has improved and updated what is still the best introductory ornithological textbook on the market.

There are 24 chapters in the new edition, compared to 23 in the first edition. The new chapter added concerns the relationship between mankind and birds. There are 77 more pages with a larger page format. This adds up to a considerable increase in information presented. There are some areas where rewriting of material was done, but generally the text has been improved by adding sections to the first edition where advances in ornithology have been made. New information is given on such topics as brain structure, circadian rhythms, dialects, magnetic sensitivity, respiration and temperature control. An extensive literature review section with 43 pages of references is included.

A minor problem with the new edition is that Welty failed to incorporate the name changes of birds that the A. O. U. made in 1973. Despite this shortcoming, Welty's 2nd edition is highly recommended for introductory ornithological courses in college and for anyone who would like to have a book that provides a rather complete overview on the life of birds.

Gary O. Wallace

THE BIRD FINDER'S 3-YEAR NOTE BOOK. 1976. By Paul S. Ericksson. Paul S. Ericksson Inc., New York. $7.95.—This is a permanent personal record book that never dates. It can be started any time and three years of records can be kept and used at a glance. There is room for daily remarks on the weather and other conditions. It has a life list index of more than 700 species of birds found in North America, listed alphabetically by their common and scientific names (based upon the latest update of the Checklist of the American Ornithologists' Union). There is space provided after each name where the date and other details can be rcorded. This is an ideal record book for anyone who likes to keep detailed, permanent records of their observations.

Gary O. Wallace

THE VIEW FROM HAWK MOUNTAIN. 1973. By Michael Harwood. Illustrations by Fred Wetzel. Charles Scribner's Sons, New York. 191 pp. $6.95.—In this book the author has several purposes which are interwoven throughout the seven chapters of the book. Each chapter is headed with a line drawing of a raptor. Much of the book covers the hawk flights that are observed on Hawk Mountain in eastern Pennsylvania where annually there is a large raptor migration along the Kittatinny Ridge, essentially the southeast edge of the Appalachian chain. Harwood attempts to convey to the reader the thrills associated with observing these hawk flights. At the same time that the author is discussing the thrill of "partaking of the view from the mountain" he gives a detailed history of Hawk Mountain, and the people involved in establishing and caring for the Sanctuary. In addition to "partaking in the view" and giving a detailed history a third point is made. The Sanctuary is being damaged due to the heavy visitation by people which has required new facilities, new roads, resulted in overcrowded lookouts and trash accumulation and a lack of privacy for both birds and birders. The book ends by posing a subtle question as to what further changes will do to the mountain and to the hawks that migrate along the Kittatinny.

Gary O. Wallace

PREPARATION OF COPY FOR PUBLICATION

The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

MATERIAL: The subject matter should relate to some phase of Tennessee Ornithology. It should be original, factual, concise, scientifically accurate, and not submitted for publication elsewhere.

TITLE: The title should be concise, specific, and descriptive.

STYLE: Recent issues of THE MIGRANT should be used as a guide in the preparation of manuscripts. Where more detail is needed reference should be made to the *Style Manual for Biological Journals* available from the American Institute of Biological Sciences, 3900 Wisconsin Avenue N. W., Washington, D. C. 20016.

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NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and ROUND TABLE NOTES, and should conform to the A.O.U. Check-list 5th edition, 1957 and its Thirty-second Supplement. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

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SUMMARY: Articles of five or more pages in length should be summarized briefly, drawing attention to the main conclusions resulting from the work performed.

IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

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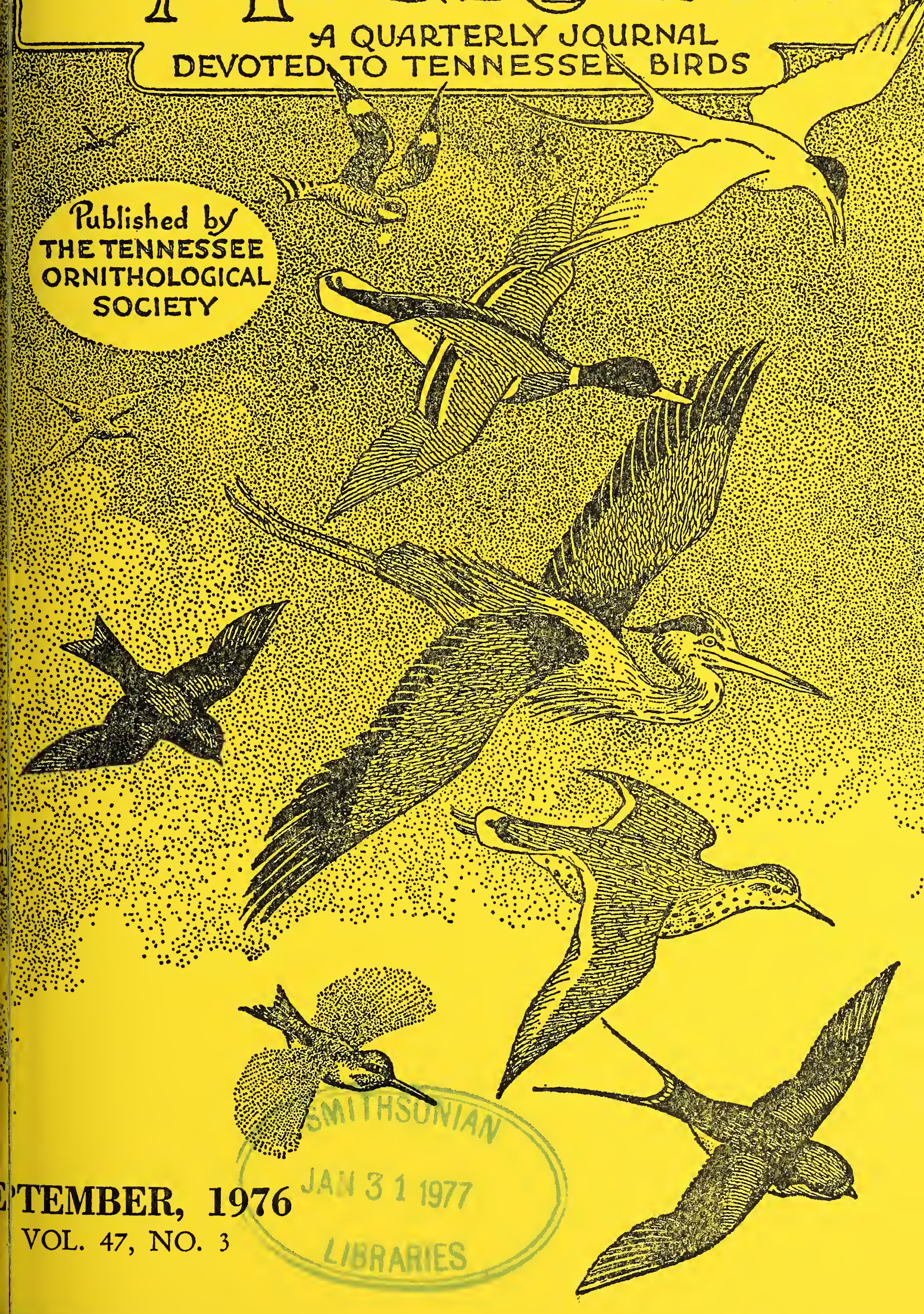
THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS



Published by
THE TENNESSEE
ORNITHOLOGICAL
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PTEMBER, 1976
VOL. 47, NO. 3

THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY
FIRST PUBLISHED, JUNE 1930

PUBLISHED BY
THE TENNESSEE ORNITHOLOGICAL SOCIETY
Founded at Nashville, Tenn., 7 October 1915
A non-profit, educational, scientific, and conservation organization.

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Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 47 SEPTEMBER, 1976 NO. 3

THE BACHMAN'S SPARROW IN TENNESSEE

Charles P. Nicholson

Within the past 15 years, the Bachman's Sparrow (*Aimophila aestivalis*), formerly a fairly common nesting bird in Tennessee, has become increasingly rare and localized. Because of this decline, the Bachman's Sparrow is listed as endangered in Tennessee (TWRC 1975).

This paper briefly describes the habits and summarizes the history of the Bachman's Sparrow in Tennessee, and presents recent observations.

Range and Migration

The breeding range of the Bachman's Sparrow extends from southern Missouri, northeast Illinois, central Indiana and Ohio, southwest Pennsylvania, and central Maryland south to Texas, the Gulf Coast, and central Florida. It winters north to central Mississippi, Alabama, north Georgia, and North Carolina (AOU 1957). The earliest spring record for Tennessee is 2, 3, or 4 March and the latest fall record is 17 October. Both of these records are from the Nashville area (Parmer 1975). Howell and Monroe (1958) give average earliest and latest dates in the Knoxville area as 14 April and 18 August. In the Nashville area, Parmer (1975) gives expected dates of from 20 April through August.

Habitat

Bachman's Sparrow typically occurs in open pine (*Pinus* spp.) woods, with a heavy ground cover of grasses, shrubs, and brush (Weston 1968; Meanley 1959). In the north-central portion of its range, Brooks (1938) describes its habitat as old fields and eroded hillsides, covered with trees, shrubs, and brambles, with heavy herbaceous cover. In Tennessee, it has been found by the author in the open pine habitat, in weedy abandoned fields (Tyler and Lyle 1944), and in open wooded pastures (Ganier 1921; Mayfield 1931). It has also been found in recent clear-cuts or burned areas replanted to pines (M. D. Williams pers. comm.; D. Burt pers. comm.; C. P. Nicholson pers. observ.).

Nesting

The Bachman's Sparrow builds its nest on the ground, concealed by low grass clumps. It is constructed of weed stems and grasses, and lined with fine grasses. The nest is frequently, but not always, arched over (Weston 1968). In the north-central part of its range, Brooks (1938) found that the nests were usually not domed. Three to five pure white eggs are laid (Weston 1968).

Published Tennessee nest records are listed in Table 1. Published records of young or fledglings are listed in Table 2.

The only recently recorded nest was found by the author in Fayette County (Waldron 1974). This nest was on the Hobart Ames Plantation, in an area intensively managed for Bobwhite Quail (*Colinus virginianus*). Management activities included maintenance of old fields, periodic controlled burning, and planting food plots. The nest, built in a broomsedge (*Andropogon virginianus*) clump, was in an old field which was burned the previous March or April (Figures 1 and 2). Herbaceous vegetation in the nest area included broomsedge, goldenrod (*Solidago* sp.), and *Lespideza* sp. Other vegetation included blackberry (*Rubus* sp.), winged sumac (*Rhus copallina*), shortleaf pine (*P. echinata*), and southern red oak (*Quercus falcata*). Approximately 2 m southeast of the nest was a foodplot 5 m wide and 5 m west of the nest was a large field of soybeans (*Glycine max*). An intermittent stream ran through an eroded area 20 m east of the nest. Large oaks grew along this stream.

The nest was built of grasses, primarily *Panicum* sp., and had an arched roof (Figure 2). The opening faced NNE. The nest, when found at 11:00 A.M. CDT, contained 3 pure white eggs and a nestling. When it was checked later that day at 15:00 P.M., it contained 2 eggs and 2 nestlings. The nest was rechecked on 24 July, and contained 4 partly feathered young. On 31 July, the nest was empty but intact; no sparrows were observed. Weston (1968) gives a record of Bachman's Sparrows fledging when 10 days old. If the birds described here did fledge, it was in less than 14 days.

TABLE 1

SUMMARY OF PUBLISHED NESTING DATA

Year	*Description*
Prior to 1910	Two nests found by R. Gettys in Athens area; one on 24 May, with 5 eggs, incubation begun, made of grass in old field; the other on 7 June with 4 fresh eggs, in old sedge field. (Ijams and Hofferbert 1934).
1918	Nest described by Ganier (1921), in Nashville area. Found 20 July, 1918, with 4 fresh eggs, in wooded pasture. Nest domed, built of coarse grass and lined with horse hair.
1934	Nest described by Tyler and Lyle (1934), near Johnson City. Found 18 May, 1934, contained 5 'nearly fresh' eggs, in weedy abandoned hillside field. Nest not domed, built in clump of dead grass.
1942	Nest described by Laskey (1942), in Nashville area. Found 3 May, 1942, and contained 2 eggs. Nest domed, built beside 'tiny buckbush', on hillside.
1944?	Nest described by Hoyt (1945), found 1 July with 4 young, 5 days old Nest domed. built of Panicum grass, located in King's Woods near Memphis. Young fledged 8 July.
1975	Nest found by the author, 4.8 km NE of LaGrange, Fayette County. Found 18 July, 1974, with 3 eggs and 1 young. On 24 July, contained 4 young. Nest domed, built of *Panicum* grass, in old field (Nicholson pers. observ., and Waldron 1974).

TABLE 2

Summary of Published Records of Young or Fledglings

Year	*Description*
1950	Adult observed feeding a young bird on 11 June, 1950, at Greeneville, by Nevius (1950).
1953	Three young observed on 7 June, 1953, by H. O. Todd in Rutherford County (DeVore 1975).
1954	Adult feeding fledglings on 4 June, 1954, in Chickamauga Park (Anon. 1954).
1974	No young or nest observed, but adult seen carrying food on 17 and 24 July, 1974, in McLemore's Cove, Georgia, by G. L. Bayne and D. J. Jacobson (Nicholson 1974).

On 18 and 24 July, the adult sat on the nest and allowed me to approach within about a meter of the nest. It then fluttered from the nest, landed nearby, and ran back and forth through the vegetation, a few meters away. As it ran about, the sparrow made a high-pitched, somewhat insect-like noise. This same behavior has been observed by Brooks (1938), and Hoyt (1945). On 18 July, both adults gave this distraction performance.

RECENT HISTORY

The Bachman's Sparrow, formerly found throughout Tennessee, is now rare and locally distributed. The reasons for this decline are not known. In 1958, Howell and Monroe described the bird as a fairly common summer resi-

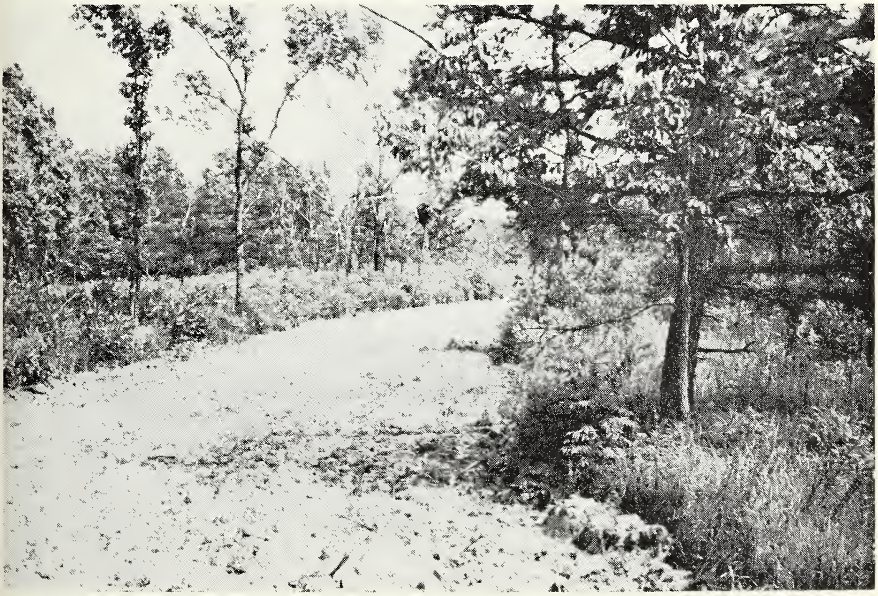

FIG. 1. Bachman's Sparrow nesting habitat, Fayette Co., TN.
Nest was found in strip on right of food plot.

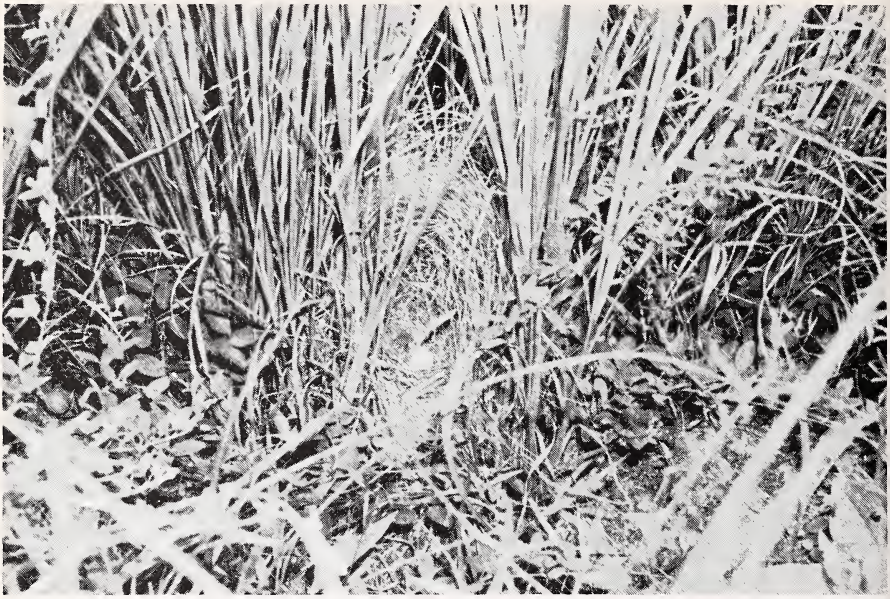

FIG. 2. Bachman's Sparrow nest, containing 2 young and 2 eggs, 18 July 1974, Fayette Co., TN.

dent in Knox County, but it has not been observed there since 1968. In 1962, Switzer noted it as scarce or absent in the Kingsport area, where it formerly occurred regularly. Parmer (1975), writing about the Nashville area, stated that the Bachman's Sparrow was formerly a "fairly common nester . . . the total disappearance of this species is not understood; suitable habitat is available."

The sparrow's occurrence on the Spring Field Days, conducted by the Tennessee Ornithological Society, is given for 1950 through 1975 in Table 3. The data show declining numbers in the 1960's and no reports at all after 1968. Table 4 lists the most recent sightings in the state.

Many of the birds listed in Table 4 were found in clearcut or burned areas, replanted to pines. Williams' 1971 record was from a burned area planted to pines, 1.8-2.4 m tall at that time. Koella's 1974 Cumberland County record was from a broomsedge field planted to pines, then 0.4-1 m tall. The birds found by Burt and the author in Rhea County were in two different clearcuts, both of which were planted to loblolly pine (*P.taeda*) in the spring of 1972. During 1974, the pines were 1-1.7 m tall. One of the clearcuts, of 213 ha, held at least three singing males in 1974 and 1975. The other area, of 124 ha, held three singing males in 1974 and two in 1975. For a further description of these areas, see Burt (1975).

The pair found by the author in 1975 was in a power-line right-of-way, grown up in broomsedge, sumac, *Panicum,* and asters. On both sides of the right-of-way were 3-10" DBH loblolly pine plantations. The pines were fairly open and had a heavy understory of honeysuckle (*Lonicera japonica*).

TABLE 3

BACHMAN'S SPARROWS RECORDED ON SPRING FIELD DAYS, 1950-1975, SHOWING DATE OF COUNT AND NUMBER OBSERVED. ONLY THOSE COUNTS REPORTING BACHMAN'S SPARROWS AT LEAST ONCE FROM 1950-1975 ARE INCLUDED. SOME OF THE DATES EARLY IN THE YEAR MAY BE OF MIGRATING, NON-RESIDENT BIRDS. FROM THE MIGRANT, VOLS. 21-46.

	Memphis	Reelfoot	Standing Stone	Montgomery Bell	Nashville	Crossville	Chattanooga	Knoxville	Greeneville	Kingsport	Bristol	Elizabethton
1950	-	-	-	-	14 May (1)	-	-	7 May (2)	-	14 May (2)	-	7 May (1)
1951	-	-	-	-	-	-	-	-	29 Apr (3)	5 May (2)	23 Apr (3)	-
1952	-	-	-	24–25 May (5)	-	-	-	4 May (2)	-	4 May (2)	-	4 May (1)
1953	2 May (7)	-	-	-	-	-	-	3 May (4)	-	3 May (1)	-	-
1954	-	-	8–9 May (2)	-	15 May (1)	-	-	2 May (7)	-	2 May (2)	-	3 May (3)
1955	-	-	-	-	-	-	-	1 May (2)	-	15 May (4)	-	-
1956	-	-	-	-	5–6 May (1)	-	-	29 Apr (1)	-	12 May (5)	-	-
1957	-	-	-	-	-	-	-	28 Apr (6)	28 Apr (1)	11 May (5)	-	-
1958	-	-	-	-	-	-	-	27 Apr (1)	4 May (1)	3 May (2)	-	-
1959	-	-	-	-	-	-	-	26 Apr (1)	-	10 May (3)	-	-
1960	-	-	-	-	-	-	-	1 May (2)	-	14 May (3)	-	-
1961	-	6–7 May (1)	-	-	-	-	-	30 Apr (1)	-	13 May (2)	29–30 Apr (1)	-
1962	-	-	-	-	-	5–6 May (1)	-	-	-	-	-	-
1963	-	-	-	-	-	-	3–5 May (3)	-	-	11 May (2)	-	-
1964	-	-	-	-	-	-	-	-	-	9 May (1)	-	-
1965	-	-	-	-	-	3 May (2)	24–25 Apr (1)	-	-	-	-	-
1966	-	-	-	-	-	7–8 May (1)	1 May (1)	-	-	-	-	-
1967	-	-	-	-	-	-	-	30 Apr (1)	-	13 May (1)	-	-
1968	-	-	-	-	-	-	-	-	27 Apr (1)	-	-	-

1969 – 1975 Not recorded on Spring Field Days

CONCLUSION

The Bachman's Sparrow was formerly fairly common in Tennessee, but in the past 15 years has been recorded very few times. This unexplained decline

TABLE 4

Region	*Location and details*
W. Coastal Plain	Fayette County—nesting pair found by the author, July, 1974 (see text). Only regional record in 13 years.
Central Plateau and Basin	Nashville area—no records since 24 April, 1961, when J. C. Ogden observed 1 bird (Parmer 1975).
	Lawrence County—5 to 6 singing males found by Clayton (1969) during summer of 1969, in old field near Piney. Two or 3 present in same area in 1972, but none found since then (Williams 1973, and pers. comm.).
	Cumberland County—one singing male observed by Williams near Westel, on 10 June 1971. None present on 20 May, 1972, or 25 May, 1973 (Williams pers. comm.).
	Cumberland County—three found by T. Koella at Crab Orchard rest area on Interstate 40, during June and July, 1974 (Williams 1974).
	Bledsoe County—one singing male observed at Fall Creek Falls State Park by T. Koella on 29 July, 1974 (Williams 1974).
	Rhea County—six singing males observed during spring and summer of 1974, and 5 observed in 1975, in clearcuts, 8 km west of Spring City, by D. Burt and Nicholson. Earliest dates were 19 April, 1974, and 24 April, 1975.
E. Ridge and Valley	Roane County—pair observed 18-20 June, 1975, near junction of Tenn. Rt. 95 and Bear Creek Road, by Nicholson. Only previous area record by Howell (1958) of 8 birds during summer of 1957.
	Walker County, Georgia—one bird observed by R. Woodruff on 3 October, 1972, at Rock Spring (Nicholson 1972).
	Walker County, Georgia—one bird observed by Jacobson and Bayne on 17 and 21 July, 1974, at McLemore's Cove (Nicholson 1974).
	Knox County—one bird observed on 27 March, 1968, by P. Pardue (Campbell 1968).
	Greene County—one bird on 31 March, 1968, recorded by R. Nevius (Campbell 1968).
E. Mountain	Sullivan County—one bird found at Elizabethton on 25 September, 1970, by L. R. Herndon (Rowell 1970).

in numbers has resulted in the bird being placed on the state's endangered species list. An increase in reports has occurred in the past two years. This may be due to an increase in the Bachman's Sparrow population or to more effort being spent to observe the bird.

The only nest record in 30 years is from Fayette County. A population in Lawrence County, present from 1969 to 1972, has disappeared. The only recent summer records from the Eastern Ridge and Valley Region have been from Roane County and extreme northern Georgia. Several reports have come from the Cumberland Plateau, where the birds are found in clearcuts planted to loblolly pine.

With the increasing trend toward growing loblolly pine in even-aged stands with a short pulpwood rotation, clearcuts replanted with pine will continue to be available to the Bachman's Sparrow. Meanley (1959) described the clearcut-replanted pine habitat as "optimum for the species in central Louisiana." Research is needed to determine how long a Tennessee pine plantation is suitable to the birds—i.e. at what point are the trees too tall or too dense to be occupied. Information is also lacking on nesting success and dispersal of young. Due to the very secretive nature of the birds about the nest, this information may be hard to obtain. However, the birds can easily be located by their distinctive song. A concentrated effort is needed to find and record locations of these birds in the state. When these steps are taken, perhaps the continued occurrence of the Bachman's Sparrow in Tennessee can be assured.

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School of Forest Resources, Univ. of Maine, Orono 04473.

* * * * * * *

REQUEST FOR INFORMATION

A large-scale Purple Martin color-marking project was initiated in 1975 for Prince George's and Montgomery Counties, Maryland and in 1976 for Saxis, Virginia. Observers are asked to look for and report any color-marked (wing tags and/or plastic leg bands) Purple Martins. Please record the color of the band, which leg it is on, age and/or sex (if either is known), where and when observed, and whether the bird was in a roost, staging flock, migratory flock, or established at a nest site. We are especially interested in the movements of young birds and their return rate to the parent colony or nearby colonies. All reports will be acknowledged and should be sent to Ms. Kathleen Klimkiewicz, 13117 Larchdale Rd. #2, Laurel, Md. 20811.

EASTERN BLUEBIRD NESTING AT ASHLAND CITY, 1975

Martha F. Herbert and Mary Ann Stephens

Eastern bluebirds are very unpredictable! This was shown by the work done with the bluebird trail in Neptune Community near Ashland City, Tennessee, during the nesting season of 1975. This year nesting started two weeks later than usual and ended two weeks earlier than usual.

The first active nest was completed and held five eggs on 6 April as compared to 22 March, 1974 and the young from the last active nest were banded on 25 August as compared to 4 September, 1974 (*The Migrant*, 46:4-5).

There were 71 boxes available and 66 of these were used sometime during the season. Six of the boxes were used for three nestings (20 in 1974), 39 boxes were used for two nestings, 21 boxes for one nesting and five boxes were not used at any time during the nesting season.

There were a total of 635 eggs laid in a total of 117 clutches. Four hundred and five of these eggs resulted in young that were banded. This is a success rate of 64 percent. One hundred and three of the 117 clutches were successful. Of the 635 eggs laid, 43 of them were pure white. These were found in five boxes. This is an increase of a little over 100 percent from the 21 white eggs found in 1974.

No clutch provided more than 5 young to be banded. One clutch had nine eggs in it, but resulted in only 3 young being banded. This was probably two clutches laid in the same nest, but whether it was laid by a single female or two separate females was not discovered.

One box containing 5 young was observed to have all 5 young nestled down in a circle with all tailed in the center and all heads pointing outward, each an equal distance from the one on either side of it. We have observed that most often the young are piled on top of each other and turned in various directions.

Encroachment by the House Sparrow (*Passer domesticus*) was limited to one box. This box later produced two clutches of bluebird eggs, with 1 young banded in the first brood and 5 young banded in the second brood. The old thermos bottle (1974) was used again this year for one nesting and three young were banded.

One incident that is continuously puzzling the authors is the repeated instances where nests producing eggs are built on top of nests already containing eggs. It has not yet been determined whether this is done by the same female or if another female is taking over the box from the original female. We would appreciate any information others have gathered concerning this.

When trying to capture the adult females for banding and checking of bands on those already banded, we found that the females were most often on the nests when the boxes were checked early in the morning or in the late afternoon. This was done to try and establish whether or not females returned to the same box year after year to raise their young, or if females returned to the box in which they were nestlings to raise their young. We would also appreciate any information others have gathered on this topic.

Route 5, Box 157, Ashland City 37015; 1262 Hillwood Drive, Clarksville 37040.

WOODCOCK INFORMATION WANTED!

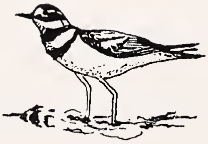
In July of this year the University of Tennessee Department of Forestry, in cooperation with the Tennessee Wildlife Resources Agency and the U.S. Fish and Wildlife Service, initiated a three-year study concerning the American Woodcock. The objective of this study is to determine the state-wide distribution of woodcock and its habitat preferences during the breeding season.

The project will be coordinated by Dr. Ralph Dimmick, Associate Professor of Forestry, and Mr. Tommy Roberts, Graduate Research Assistant. The success of this project will be greatly enhanced by information gathered by reliable observers and organizations.

The TOS has been asked to assist by supplying any information concerning observations of woodcock in Tennessee. All local chapters have been contacted and provided with materials necessary to forward pertinent data to the investigators.

The type of information that has been requested includes: numbers of woodcock observed, location, date, weather conditions, time of day, activity of bird, presence of a clutch or brood and any other observations that you may feel are pertinent.

If interested in cooperating or if more information is desired, please contact either your local TOS chapter or Tommy Roberts by letter at the University of Tennessee, Department of Forestry, P. O. Box 1071, Knoxville, Tennessee 37901 or by phone (collect 615—974-7126).



MINUTES OF THE ANNUAL SPRING MEETING, 1976

Annual Board of Directors' Meeting

The 61st Annual Meeting of the Board of Directors of the Tennessee Ornithological Society was held at 3:50 P.M. on 1 May, 1976 at The Quality Inn-South, Chattanooga, Tennessee.

The meeting was called to order by the President, Ray Jordan, with 49 members present, four represented by proxy. The approval of the minutes of the 1975 Fall meeting was postponed until our next meeting, when they will have been printed in *The Migrant*. The above action was taken at the suggestion of the President by a motion by Mr. Miser Richmond and seconded by Paul Crawford.

REPORTS OF OFFICERS:

There were no reports from the Vice Presidents or the Secretary. The Treasurer asked that the report of the Finance Committee be given before the Treasurer's report. Mr. Oscar Patrick, Chairman of the Finance Committee read his Committee's report and copy of same is filed with the secretary. Mr. Patrick moved that this report be adopted; it was seconded by Mrs. Noreen Smith; motion carried.

TREASURER'S REPORT was presented by Kenneth Dubke, the summary of which follows:

Balance in Checking Account, 30 April 1975	$2,999.77
Income as Itemized	5,384.08
Total	$8,383.85
Disbursements as Itemized	6,187.93
Balance in Checking Account, 30 April 1975	$2,195.92
Savings Account First Tenn. National Bank	1,589.86
Five Certificates of Deposit—Chattanooga Federal	5,700.49
638.684 Shares of MIT Stock at $10.94	6,996.20

There are 732 paid members for the 1976 year.

The Treasurer's Report was approved by the Board.

At this point, the President announced the organization of a new group in Kingsport. Dr. Dan Gray moved that this new group be accepted as a T.O.S. Chapter, to be known as the Kingsport University Chapter. Motion was seconded and carried.

EDITOR'S REPORT: Dr. Gary Wallace's report included a plea for all records to be sent in.

He also reported the need for a copy of the species index card records, as there is only one copy in existence. Mrs. Alice Gant moved that the Editor be given authority to proceed with an investigation of method and price of obtaining copies of these records and to do what seems best with a reasonable amount of money after advisement with the President and Treasurer. Motion was seconded by Holly Overton. Motion carried.

Morris Williams moved that the Editor obtain a fireproof box to contain the species records as soon as possible. Motion was seconded by Louise Nunnally. After discussion, motion was defeated by a vote of 18 in favor to 22 opposed.

There was no report from State Count Compiler, Morris Williams.

CURATOR'S REPORT: Dr. James Tanner reported that the personal notes and records of Mr. Albert Ganier and Mr. Alfred Clebsch were now stored in the University of Tennessee Library. He requested that other like records be submitted to him for the same disposition. Dr. Tanner also advised that copies of all back issues of *The Migrant* are available.

There were no reports of Directors-At-Large.

REPORTS OF STANDING COMMITTEE: Finance Committee, given above.

CONSERVATION COMMITTEE: Dr. George Mayfield, Coordinator of the Conservation Committee, reported that he had been in contact with Rep. Robin Beard concerning the blackbird problem in Tenn. and requested an expression of opinion as to how our organization felt about the recent blackbird population reduction methods. No stand was taken by the organization as a whole. In discussion, it is generally agreed that a reduction of blackbird population would be favored but methods should be studied carefully to be sure that other birds and other wildlife not be affected.

Dr. Mayfield advised that the South Fork of the Cumberland has been authorized as a recreational area but no funding has been authorized. He urged that members write to Sen. Howard Baker asking that he make every effort to have this project funded. Dr. Mayfield also requested that members be urged to write to Sen. Brock requesting that he introduce legislation to protect the Obed River as a scenic river. Also, letters to Senators and Representatives protesting the proposal of the Amax Corporation for strip mining on the Cumberland Plateau for coal to be sold to Japan, would be in order.

Catoosa WMA Pine Beetle: Mr. Bill Yambert gave a description of the Southern Pine Beetle heavy infestation in East Tennessee, especially in the yellow pines of Catoosa Wildlife Management Area, the habitat of the Red-cockaded Woodpecker. On 23 Sept. 1975 in this 4,000 acre yellow pine tract, there was infestation in 60 to 100 acres. In November, it had spread. The TWRA was empowered to cut out the infested area plus a buffer zone. So far the beetle and the woodpecker have lived together and so the woodpecker may not be eradicated. The plan for stopping the infestation, however, has not been successful. Tenn. Tech. University and the University of Tenn. are doing studies on this problem and there is hope that a balance of woodpecker, yellow pine and pine beetle can be achieved.

AEDC Heron Rookery: Ken Dubke reported on the Duck River, AEDC rookeries. Goose Pond and Sinking Pond have been declared national, registered sites.

Breeding Bird Census: Katherine Goodpasture, State Coordinator for the Breeding Bird Census, stated that the schedule for the coming survey is in order. There is a full 42-route count for this year. Last year, 1975, completed ten years of the survey, which gives a good backlog for information and analysis of bird populations over the State. Tenn. runs 42 routes, and over the nation there are about 1700 routes run, showing our proportion to routes over the nation. There were approximately 136 species sampled in Tenn. Each year the State turns in approximately 30,000 birds counted. There are no recent additions of species to the State list and no recent figures from the Laurel office on last year's count. Tenn. has one of the best records for having the counts run. Complete routes have been run every year.

1976 Foray: Diane Wilson announced plans for the Foray into Johnson County. Headquarters are to be at Shady Valley Elementary School, beginning Friday afternoon, 28 May. The Least and Willow Flycatchers will be the target birds. She gave names and phone numbers of motels, cabins, campground, and boat dock accommodations in the area.

There was no report of CERTIFICATION (New Species) COMMITTEE, Gary Wallace, Chairman.

NOMINATING COMMITTEE: The Nominating Committee is composed of Holly Overton, Chairman, Martha Dillenbeck and Clyde Anderson. The Chairman announced that the Committee had placed the name of Kenneth Dubke in nomination for President-Elect. Katherine Goodpasture moved the report of the Committee be accepted. Motion seconded by John Sellars. Motion carried.

REPORTS OF SPECIAL COMMITTEES:

TOS PATCHES AND DECALS: Lil Dubke gave a report that $739.29 had been paid for the patches and sales totaled $418.59. We need to sell $320.70 in order to break even on the investment.

NON-GAME PROGRAM: Ken Dubke, Coordinator, reported cooperation with Bill Yambert and the TWRA. A recommendation to the Commission for a game species to be put on the threatened list has not been followed. Mr. Dubke will go before a full Commission meeting and pursue this matter vigorosuly.

DIXON MERRITT MEMORIAL: Mr. Miser Richmond presented the Committee report in the absence of William Senter, Chairman. The report was elaborated on by John Sellars. After discussion, it was decided to postpone any action on this project until the arrival of the Chairman, at the business meeting that evening.

TOS INFORMATIONAL BROCHURE: The brochure is not ready at this time, but Fred Alsop stated that he can have it for submittal to the Board at the Fall meeting, 15 October. Discussion was held as to the type of brochure desired, quality, cost, etc. Ken Dubke moved that Fred Alsop be authorized to draw up a suitable brochure for up to $300. The motion was seconded by Boyd Sharp. Motion carried. Mr. Alsop will have the brochure in the hands of Wallace Coffey for printing by 15 September, and brochures will be ready by the Fall meeting.

OLD BUSINESS:

CONSTITUTIONAL QUESTION (Deletion of Directors-At-Large): The proposed amendment to the Constitution of TOS for deletion of Directors-At-Large was introduced for discussion and action. Henry Dinkelspiel moved that the proposed amendment to Article III, Section 2, Paragraph 1, as approved at the 1975 Fall Meeting of the Board of Directors be accepted. The motion was seconded by Bill Williams. David Hassler, Director-At-Large for Middle Tennessee, spoke in opposition to the amendment. After considerable discussion, Mr. Dinkelspiel withdrew his motion. Dr. George Mayfield moved that a committee composed of the President, the three Vice-Presidents and the Directors-At-Large study the matter and submit a proposition as to how the question should be resolved, report to be made at the next Spring Meeting. Motion was seconded by Wallace Coffey. The motion carried.

NEW BUSINESS:

RESOLUTION IN SUPPORT OF NON-GAME LEGISLATION: Chester McConnell of the Buffalo River Chapter read a resolution which states, in effect, that TOS would favor legislation at the federal level to allocate funds to the States, such funds to be derived from excise tax on outdoor equipment, and such funds to be used for promotion of non-game programs, only. Copy of said Resolution is filed herewith. Mr. McConnell moved that this Resolution be adopted by TOS. Motion was seconded by Martha Waldron. Motion carried. The President asked Mr. McConnell to pass this Resolution on to the proper authorities with the advice that it had been adopted by TOS.

TENNESSEE HERITAGE PROGRAM: Mr. Jack Sites requests the help of TOS members in pinpointing any locations consistently used by any birds on the endangered or threatened list in order that attempt may be made to preserve these areas.

ANNOUNCEMENT:

FALL MEETING: Dr. Mayfield advised that the Fall meeting will be held at Fall Creek Falls State Park, on 16 October 1976. There are 36 rooms available for Friday night, 15 October and 56 rooms for Saturday, 16 October for our members. Chapters should be informed to make reservations early.

The meeting was adjourned at 4:30 P.M.

ANNUAL BUSINESS MEETING:

Following the banquet at the Quality Inn-South, the business meeting was called to order. Ray Jordan, President, welcomed all members and visitors. The roll was called with 179 members and visitors present.

The President presented a summary of items discussed and actions taken at the Board of Directors meeting.

The Chairman of the Dixon Merritt Memorial, Mr. William Senter reported that the State will contribute to the cost of the proposed plaques. The TOS has agreed to pay $120.00. This amount to be raised from subscriptions from individuals and/or chapters. Checks should be made payable to Kenneth Dubke, Treasurer, earmarked for the Merritt Memorial. This is a tax deductible item.

The Nominating Committee's report which placed the name of Kenneth Dubke in nomination for President-Elect was presented to the membership. Motion was made by Noreen Smith that the nominations be closed. Mr. Miser Richmond seconded the motion. Motion carried.

Mrs. Helen Dinkelspiel extended a cordial invitation on behalf of the Memphis Chapter to the membership to the 1977 Spring meeting in West Tennessee. The location and plans will be announced at a later date.

Following the business meeting, Dr. Lee Herndon introduced the speaker for the evening, Kenneth Dubke, Interpreter, Chickamauga-Chattanooga National Military Park. Mr. Dubke presented a slide program on "Diversified Habitat and Birds of the Chattanooga Area."

Louise Jackson, Secretary

BOOK REVIEWS

ANOTHER PENGUIN SUMMER. 1975. By Olin Sewall Pettingill, Jr., Charles Scribner's Sons, New York. 48 pages of photographs, 16 pages in color. 80 pp. $10.00.—This is a delightful and informative book about one of nature's most appealing birds. The author, who is the former director of the Laboratory or Ornithology at Cornell University, uses a gently humorous style of writing along with many splendid color photographs. The book is about five species of penguins: Gentoo, Rockhopper, Jackass, King and Macaroni at their breeding grounds on the Falkland Islands, south of Argentina. Pettingill tells about the penguins' daily lives; their pairing and nestbuilding; the birth and progress of their young; family problems; squabbles with neighbors; and at the same time points out their more humorous and more "human" characteristics, their nearsightedness, their awkwardness, their personality quirks.

This is an excellent book for all wildlife enthusiasts and at the same time a lighthearted look at what is probably the most comical-looking of all birds.

Gary O. Wallace

HOW BIRDS FLY: UNDER THE WATER AND THROUGH THE AIR. 1975. By John K. Terres. Hawthorn Books, Inc., New York. 177 pp. Illustrated with 15 line drawings by Robert Hines. paperbound, $3.95.—This is an excellent book that was originally published in 1968 under the title, Flashing Wings. Terres has taken the complicated subject of bird flight and has made it easy to understand. He covers the subject without getting into a discussion of higher mathematics. The 15 chapters in the book cover the various types of flight as well as the dangers, heights and speeds of flight. Other topics of interest include maneuverability, underwater flight and the beginning of flight. There are three appendices that cover technicalities of flight and tables of wingspans, weights, body lengths and wingbeats per second. If you have an interest in birds and in particular how they fly, this book will certainly help you to better understand the mechanics of flight.

Gary O. Wallace

ROUND TABLE NOTES

PEREGRINE REPORTED IN LAUDERDALE COUNTY—Through the kindness of Dave Vance I was able to read a most interesting article, "Following a Migrating Peregrine from Wisconsin to Mexico" by William W. Cochran, published in *Chalk Talk* XIV (2): 28-37 (August, 1975). An immature male Peregrine was tracked electronically from near Green Bay, Wisconsin, 0631 hours, 12 October 1974 to northeastern Mexico, at the end of 25 October. The habitat selected at the end of each day's migration was listed. We learn that this Peregrine spent the night of 17 October in a "wooded area ten miles east of the Mississippi River near Halls, Tennessee." This is our first Lauderdale County record of the species. The Peregrine spent the preceding night in Mississippi River bottomlands near Concord, Missouri, and the succeeding night, on a wooded island in the Mississippi near Benoit, Mississippi.

Ben B. Coffey, Jr., 672 N. Belvedere, Memphis 38017.

SANDHILL CRANES SIGHTED AT DUCK RIVER BOTTOMS—A small group of eight adult Sandhill Cranes (*Grus canadensis*) were sighted in the Duck River Bottoms area of the Tennessee National Wildlife Refuge. Biological Technician Carl E. Dowdy noticed the unusual group of birds on 8 December 1975 while making a routine waterfowl census.

The group of eight Sandhill Cranes were observed for some time with the aid of a Zoom 60 Bausch and Lomb spotting scope. The birds were approximately 300 yards away when observed. Sight of the cranes was lost on the afternoon of 8 December 1975 and not seen again. Presumably the birds mi-
record of a Sandhill Crane observation on the Tennessee National Wildlife
grated further south. Refuge Manager V. L. Childs states that this is the first
Refuge.

Vandiver L. Childs, Refuge Manager, Tennessee National Wildlife Refuge, Box 849, Paris 38242.

GROUND DOVE AT DUCK RIVER REFUGE—On 3 December 1974, while birding in the refuge near Hustburg I observed and photographed a Ground Dove (*Columbigallina passerina*). The bird flew up to a tree roughly fifteen feet from me as I was parking my car. The decidedly small dove, very tame at this point, was in general a grayish-brown in color with conspicuous spots along the wings. The underparts varied slightly from the throat to breast but in general showed a light pinkish tinge In flight, the bird showed conspicuous rufous wing patches and a short dark rounded tail.

I was able to observe the dove in very good light for thirty minutes often as close as ten feet. Several times the bird would walk in the fields just ahead of me and then fly up to a small bush a short distance away and remain while I took some more pictures. At one point, the bird flew to my car and walked around for a short while.

The bird was again seen and photographed on 6 December, by Dot and Paul Crawford. At that time the bird was very wild and found in a flock of Mourning Doves (*Zenaidura macroura*). On 7 December, the bird was again sighted by a group composed of Mike Bierly, Don and Gina Manning, Pat Stallings, Betty Richards and Margaret Mann.

JERALD LEDBETTER, 1016 Highland, Jackson 38301.

NEST OF OLIVE-SIDED FLYCATCHER IN THE SOUTHERN APPALACHIAN MOUNTAINS—On 30 June 1974 I located the nest of an Olive-sided Flycatcher (*Nuttallornis borealis*) in the Great Smoky Mountains National Park, Sevier County, Tennessee. The nest was placed about 30 m from the ground and four meters from the top (fig. 1) of a large red spruce (*Picea rubens*) near the Alum Cave Bluff Trail at an elevation of 1350 m. The nest was located by watching one of the two adults go to the nest and apparently settle down to incubate.

On 5 July, accompanied by Lori and Don DeFoe (Asst. Chief Naturalist, G.S.M.N.P.), I returned and climbed to the nest. The nest was saddled on a horizontal branch 2.4 m from the trunk of the tree and was completely exposed from the top and all sides (fig. 2). One young which was 4-5 days old and two eggs were in the nest. Both adult birds were nearby giving their *pip-pip-pip* alarm notes.

On 18 July I again climbed to the nest. There were three birds in the vicinity of the nest giving the alarm notes; I also heard the song. The nest and one remaining egg were collected along with a short segment of the supporting branch (MDW # 184, currently housed in the Univ. of Tenn. Mus. Zool.). The egg, which did not contain an embryo, measured 2.4 x 16 mm. The nest was composed almost entirely of *Usnea* moss with a few twigs of spruce and some unidentified black rootlets. It measured 109 x 120 mm, across the top

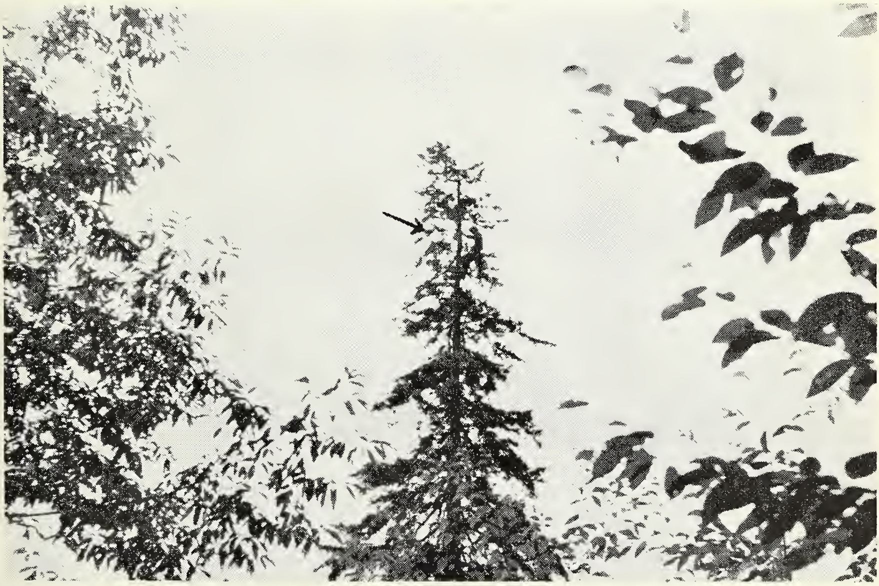


FIG. 1. Nest site of Olive-sided Flycatcher, Sevier County, Tennessee, 5 July 1974, photo by Don DeFoe.

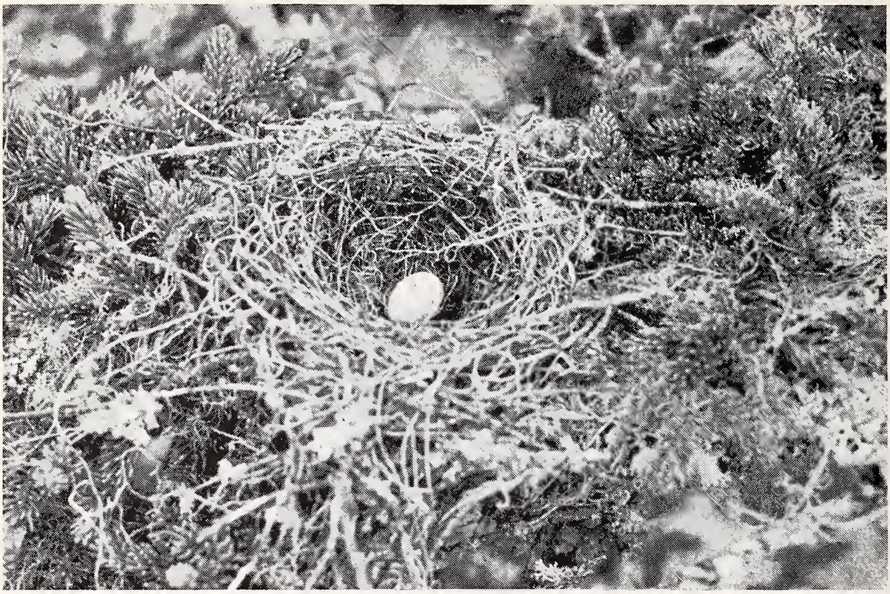


FIG. 2. Nest of Olive-sided Flycatcher, Sevier County, Tennessee, 18 July 1974, photo by the author.

on the outside (outside depth could not be measured). The nest cup was 66 x 75 mm across and 39 mm deep.

This is apparently the first nest of this species to be recorded in the southern part of the Appalachians. It was considered to breed in both Tennessee (Stupka 1963, *Notes on birds of the Great Smoky Mountains National Park,* Knoxville, Univ. of Tenn. Press) and North Carolina (Pearson, Brimley, and Brimley 1942, *Birds of North Carolina,* Raleigh, N.C. Dept. of Agric.,) but without direct evidence. The previous southernmost nest records of which I am aware were of some West Virginia nests which seem not to have been published. Prof. Maurice Brooks informs me (letter Jan. 1976) ". . . in June, 1914, Rev. Earle A. Brooks, Orr King, and I found several nests of Olive-sided Flycatchers near Cranberry Glades, Pocahontas County, W. Va. The only reason I can think of that no published account mentions these is that the birds were then so common in the area that nesting was taken for granted . . . . I remember two nests, both with young birds, along Charles Creek, a small tributary of Cranberry River. Both were near the tops of scrubby red spruces, and the parents were fairly attentive. Adult birds were so much in evidence that we simply accepted the nests as of common occurrence."

Although these birds are still recorded in the southern Appalachians in the breeding season, they are much less common than they were in the first half of this century. Stupka (op.cit.) gave 148 records for the Great Smoky Mountains National Park for the years 1934-61. In recent years I have failed to find them in the area from Newfound Gap to Clingman's Dome where they were formerly found regularly. Prof. Brooks (op.cit.) writes that prior to about 1950 they were common to abundant in several counties in the West

Virginia mountains and regular in the higher portions of Highland County, Virginia but that in recent years they have become scarce or absent over much of this area.

On 25 July 1975, I heard two Olive-sided Flycatchers singing in the vicinity of the 1974 nest.

I am grateful to Maurice Brooks, George A. Hall, Eloise F. Potter, and Marcus B. Simpson, Jr. for providing me with information on the status of Olive-sided Flycatcher in the southern Appalachian Mountains. I thank J. C. Howell for suggestions on improving this note.

Morris D. Williams, Department of Zoology, University of Tennessee, Knoxville 37916.

The Tennessee Ornithological Society is a co-participant in establishing memorial plaques in honor of one of its co-founders, Dixon L. Merritt. The amount committed by the TOS was $120.00 to be raised by donations from chapters and individuals. These plaques will be placed in the Cedars of Lebanon State Park in the early fall of 1976. We encourage anyone who would like to participate individually to do so. This would be a tax-deductible donation. Checks should be made to "TOS—Merritt Memorial Fund" and forwarded to Ken Dubke (Rt. 1, Box 134-D, Ooltewah, TN 37363).

FRED WILLIAM BEHREND 1896-1976

By Lee R. Herndon

Fred was born 31 May 1896 in the city of Brandenburg, Germany. He attended subscription school for eight years, which included five years of French and two years of English. While thirteen years of age he began a four-year apprenticeship in the commercial department of a small plant manufacturing machinery and implements. Three years of this period he attended night school and was an honor student. He served in the German army for about three and one-half years as clerk to high ranking German officials on both the Russian and French fronts. After the war he held a variety of jobs in manufacturing plants and as a reporter for the news media until 1926, when he immigrated to the United States, with financial aid from a friend in New York. Shortly after his arrival he was employed as a German-English stenographer for the top officials of Bemberg and North American Rayon Corporations, a position he held until 1958, when his employment was terminated, with the closing of the executive department. From that time until his retirement in 1970 he served, most of this period, as Editor of the Elizabethton Star.

While pursuing one of his favorite hobbies, hiking, he met Mary Fern Green of Knoxville. On 19 June 1943 they were married on a mountain trail. They had two daughters.

Fred and Mary Fern were charter members of the Elizabethton Bird Study Club, organized in February 1944, which, shortly thereafter became the Elizabethton Chapter of the Tennessee Ornithological Society.

Fred's greatest contribution to TOS occurred during the three years (1946-1949) when he served as secretary. During and after World War II, TOS had shrunk to possibly the lowest ebb in its existence. Largely through his efforts, by means of voluminous correspondence and with the cooperation of a newly elected or appointed Board of Directors, TOS was reorganized, new chapters formed, membership increased and its affairs restored to order. During the period of his membership, he contributed more than fifty separate articles to *The Migrant* and participated in many state and local activities. Notable among first state records was the finding of the Evening Grosbeak (*Hesperiphona vespertina*) at the Behrend home, near Milligan College, by Mary Fern on 22 November 1945 (*The Migrant*, 16, 53-55); and finding the Snow Bunting

(*Plectrophenax nivalis*) on Big Bald Mountain on 21 November 1948 (*The Migrant,* 19, 64-66); he initiated and compiled the results of the first statewide fall hawk migration (*The Migrant:* 22, 53-57); he organized the first Carter County Wildflower Tour in the spring of 1959; the Carter County Fall Color Slide Contest and the fall Naturalist's Rally in 1963.

In 1959 he was honored by the VFW as the Outstanding Citizen of the year for Carter County. He also served as Colonel on the Governor's Staff for three years.

For several years Fred wrote a weekly column entitled "The Naturalist's Corner" or "With and About the Birds." Many of his articles were illustrated with one of his superb photographs of the subject. His many excellent photographs of nature subjects resulted in his being listed in "Who's Who in Photography" at one time.

He was affiliated with the First Presbyterian Church of Elizabethton. On occasion when the minister would remind him of his absence from church on a Sunday morning his reply was "I was where I wanted to be," usually on some mountain trail communing with nature.

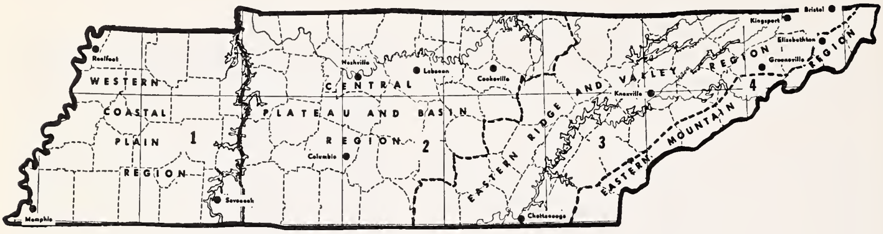
Following the fall Naturalist's Rally in 1975 a special surprise recognition dinner was held in his honor at which he was presented a Scrap Book, a scroll signed by all those attending and a tape recording of events of the evening.

Fred suffered a stroke while alone on a nature hike on the afternoon of 12 June and after being hospitalized for more than two months, died on 18 August 1976. He will be greatly missed, not only by his TOS friends, but by the many readers of his weekly nature column and his many naturalist friends throughout the area.

673 Golf Course Drive, Elizabethton 37643.

THE SEASON

FRED J. ALSOP, III, *Editor*



Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

SPRING SEASON: 16 MARCH - 15 MAY

Across the State the observations are of a Spring that is the driest in years. The mild temperatures have encouraged many species to nest "early" and many birders to take to the field. The blackbirds roosts broke up at Milan and Ft. Campbell before major steps were taken to attempt to reduce the numbers of birds there by chemical treatment.

Several water-associated species were seen that are of note because of their rarity in Tennessee: a Fulvous Tree Duck in the Nashville Area, a Double-crested Cormorant in the Eastern Ridge and Valley, and a Snowy Egret in the Eastern Mountain Region. Perhaps the best reported birds of prey are the Goshawk first found in the Eastern Mountain Region last Fall and still present into this reporting period; the Mississippi Kite in the Western Coastal Plain, and the Merlin from the Eastern Ridge and Valley. Morris Williams was busy finding raptor nests at Five Points and contributed records for Red-tailed and Red-shouldered Hawks and the American Kestrel. Marsh dwelling species are most noteably represented by the Common Gallinule in the Central Plateau and Basin the nests of King Rail and Virginia Rails in the Eastern Ridge and Valley.

A Scissor-tailed Flycatcher was found in the Central Plateau and Basin, Brown-headed Nuthatches in the Eastern Ridge and Valley as well as House Finches, and Painted Buntings and Lark Sparrows were seen in the Western Coastal Plain. Pine Siskins were reported from the western end of the State and Evening Grosbeaks from all four regions. Swainson's Warblers were observed in the eastern and western-most regions where they are known to breed. Philadelphia Vireos were reported from all but the Western Coastal Plain Region. These and many other records of interest follow in this the Spring Season.

WESTERN COASTAL REGION—This season was marked with below average precipitation and a cooler than usual spring, but a warmer than usual winter to spring transition. Migrants were not unusually early. This report reflects the different transients through the area even though some of the dates may not be of significance.

Scaup-Tern: Lesser Scaup: 4 Apr. (13) PF (MW); 11 Apr. (45) SFSP (AS); 25 Apr. (11) SFSP (TOS); 15 May (2) WNWR (HD, MW). *MIS-*

SISSIPPI KITE: 25 Apr. (1) SFSP (TOS). American Bittern: 30 Apr. (1) EB (RJ); 1 May (1) M (JLJ); 6 May (1) HNWR (JL). Virginia Rail: 25 Apr. (1) DSP (BC, TS). Sora: 5 Apr. (1) PF (MW); 3 May (4) PF (RJ). Semipalmated Plover: 4 Apr. - 3 May (2 to 4) PF (RJ, MW). American Golden Plover: 27 Mar. (33) PF (DW, HD, MW). Common Snipe: 4 May (1) PF (MW, RJ). Upland Sandpiper: 1 Apr. - 4 May (2 to 4) PF (HD, MW, RJ). Spotted Sandpiper: 5 Apr. - 3 May (1 to 4) PF (MW, AS, HD, RJ); (1) N of Lexington (BC, LC, AS, TS); 8 May (3) Maple Creek Lake, NTSP (BC, LC, AS, TS). Solitary Sandpiper: 25 Apr. (4) DSP (BC, TS); (4) PF (HD, MW); 8 May (2) N of Lexington (BC, LC, AS, TS). Greater Yellowlegs: 5 Apr. (1) PF (MW); 1 May (1) M (JLJ); 4 May (1) M (BC); 8 May (1) N of Lexington (BC, LC, AS, TS). Lesser Yellowlegs: 27 Mar. - 3 May (1 to 2) PF (HD, MW); 25 Apr. - 4 May (1 to 3) M (BC, JLJ, TS); 8 May (2) S of Lexington (BC, LC, AS, TS). Pectoral Sandpiper: 7 Mar. (1) Lake Benwood (Drained lake site in Crittenden Co., Ark.) (BC, LC, DW); 24 Mar. - 3 May (1 to 6) PF (HD, RJ, AS, MW); 1 May - 4 May (2) M (JLJ, BC); 8 May (1) N of Lexington (BC, LC, AS, TS). Least Sandpiper: 7 Mar. (4) Lake Benwood (BC, LC, DW); 25 Apr. (4) DSP (BC, TS); 29 Mar. - 3 May (5) PF (MW); 8 May (3) N of Lexington (BC, LC, AS, TS). Semipalmated Sandpiper: 29 Apr. - 3 May (1, 2) PF (MW). Forester's Tern: 28 Apr. (2), 29 Apr. (1) PF (RJ, MW).

Swifts-Sparrows: Chimney Swifts: 27 Mar. (2) G (MW, JW). Veery: 15 May (1) M (RJ). Blue-gray Gnatcatcher: 20 Mar. (1) HPL (AS); 25 Mar. - 28 Mar. (1, 2) M (RJ). Golden-crowned Kinglet: 8 Apr. (1) PF (RJ). Yellow-throated Vireo: 3 Apr. (1) SFSP (RJ). Warbling Vireo: 11 Apr. (1) SFSP (AS). *SWAINSON'S WARBLER:* 18 Apr. (1) M (DW); 12 May (1) (BC). Golden-winged Warbler: 9 May (1) NTSP (LC). Cape May Warbler: 9 May (2) NTSP (LC). Bobolink: 25 Apr. (2 flocks, 125) SW Shelby Co. (BC, LC, TS); 12 May (2) PF (RJ). Scarlet Tanager: 14 May (1) SFSP; (1) Lauderdale Co. (RJ). *EVENING GROSBEAK:* 25 Apr. (6) M (BC, LC, TS). Rose-breasted Grosbeak: 14 May (2) SFSP (RJ). Blue Grosbeak: 22 Apr. (1) Covington (AS); 5 May (1) EB (RJ). *PAINTED BUNTING:* 19 Apr. - 12 May (1) Covington (AS). 15 Apr. (2) M (RJ). *PINE SISKIN:* 25 Apr. (80) (TOS); 11 May (3) SFSP (RJ, HD). Grasshopper Sparrow: 16 Apr. - 12 May (2) PF (RJ, HD, HSD, AL, MW). Savannah Sparrow: 12 May (10) PF (MW). *LARK SPARROW:* 21 Apr. (2) PF (RJ). Chipping Sparrow: 27 Mar. (2) M (RJ). Lincoln's Sparrow: 30 Apr. (1) EB (RJ); 5 May - 12 May (1) PF (RJ, MW).

Locations: Benwood Lake—Crittenden Co. ARK; DSP—Darwin Sewage Ponds, SW Shelby Co.; EB—Ensley Bottoms, SW Shelby Co.; G—Germantown, E Shelby Co.; M—Memphis; HNWR—Hatchie National Wildlife Refuge; HPL—Herb Parsons Lake, Fayette Co.; NTSP—Natchez Trace State Park; PF—Penal Farm; SFSP—Shelby Forest State Park; WNWR—Wapanocca National Wildlife Refuge, Crittenden Co. ARK.

Observers: BC—Ben Coffey; LC—Lula Coffey; HD—Helen Dinkelspiel; HSD—Henry S. Dinkelspiel; JL—Jerald Ledbetter; JLJ—John L. Johnson; RJ—Rusty Jones; AL—Allen Lorrabee; AS—Alice Smith; TS—Torbjorn S'All;

TOS—TN Ornithological Society, Memphis Chapter; JW—James Waldron; MW—Martha Waldron; DW—Dick Whittington.

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CENTRAL PLATEAU AND BASIN REGION—*Heron-Owl:* Green Heron: 28 Mar. (1) BV (MLB). Little Blue Heron: 3 Apr. (1) BV (MLB). Cattle Egret: 17 Apr. (1) BV (RJM); 13 May (7) Rutherford Co. (Anne Hettish). Least Bittern: 15 and 16 May (1) ACM (RJM, CDC). American Bittern: 21 Mar. (1) Lawrence Co. (Lloyd Clayton); 27 Mar. (3) NA. *FULVOUS TREE DUCK:* 13-21 May (1) G (DC, PC), 1st NA record. Gadwall: 7 May (4) MP (Allen Presnell). Ring-necked Duck: 10 May (1) MP (MLM). Canvasback: 4-11 May (1) G (DC, PC). Ruddy Duck: 10 May (1) MP (MLM). Sharp-shinned Hawk: 3 reports, NA. Cooper's Hawk: 2 reports. Red-tailed Hawk: 9 active nests, FP (MDW). Red-shouldered Hawk: 27 Mar. (9) CL (RJM); 6 active nests, FP (MDW). *ROUGH-LEGGED HAWK:* 27 Mar. (1) ACM (CDC, CE, RJM). Golden Eagle: 3 Apr. (1, last) Burt (MW). Osprey: 6 records, NA. American Kestrel: 7 active nests, FP (MDW). Virginia Rail: 29 Apr. (1) Old Hickory (Frank and Karen Ritter); 16 May (1) ACM (WF, DRJ). Sora: 8 reports, NA. *COMMON GALLINULE:* 18 Apr. (1) MP (BJ); 6 May (1) Cookeville (Greg Archer, BJ). American Golden Plover: 27-30 Mar. (1-4) NA (Sally Fintel, MPS). Black-bellied Plover: 14 May (1) G (DRJ). American Woodcock: 28 Apr. (adult with 4 young) SB (MPS). White-rumped Sandpiper: 15 May (2) G (DC, PC). Stilt Sandpiper: 4 and 15 May (1) G (DC, PC, DRJ). *BAIRD'S SANDPIPER:* 4-15 May (2-4) G (DC, PC, DRJ). Dowitcher sp. 11 May (9) G (DC, PC). Forster's Tern: 6 Apr. (1) Old Hickory Lake (WF). Yellow-billed Cuckoo: 11 Apr. (1) 2 Js (JR). Barn Owl: 5-27 Mar. (1) SB (MPS).

Flycatcher-Sparrow: SCISSOR-TAILED FLYCATCHER: 1-3 May (1) Columbia (Mrs. Louis Hardison, *fide* George Mayfield). Alder Flycatcher: 15 May (1) ACM (CDC, RJM). Eastern Wood Pewee: 17 Apr. (1) Cheatham NWR (RJM). Least Flycatcher: 15 May (2) ACM (CDC, RJM). Olive-sided Flycatcher: 13 May (1) NA (RJM). Red-breasted Nuthatch: 16 Apr. (1) FP (MDW), (the 1st nuthatch of any species I've ever seen around FP). Long-billed Marsh Wren: 17 Apr. (1) CL (RJM). Short-billed Marsh Wren: 24 Apr. (2) SB (MPS). *PHILADELPHIA VIREO:* 9 May (2, banded) 2Js (HR, JR). Orange-crowned Warbler: 24 Apr. (1, banded, western race) 2Js (HR, JR). Connecticut Warbler: 10-15 May (1) NA (Jack Sites); 14 May (1) NA (MLB); 15 May (1) and 16 May (2) SB (MPS). Mourning Warbler: 15 and 16 May (1) SB (MPS). *EVENING GROSBEAK:* 15 May (1) South Tunnel (Bessie Hagan); 19 May (1) Warren Co. (MW). Lark Sparrow: 9 May (5) Cannon Co. (Frances Bryson). Swamp Sparrow: 15 May (1) CL (CDC, CE, RJM).

Locations: ACM—Ashland City Marsh; BV—Buena Vista; CL—Cheatham Lake; FP—Five Points; G—Gallatin; MP—Monsanto Ponds; NA—Nashville Area; SB—Shelby Bottoms; 2Js—Two Jays Sanctuary.

Observers: MLB—Michael Bierly; CDC—Dwight Cooley; DC—Dot Crawford; PC—Paul Crawford; CE—Craig Empson; WF—William Fintel; DRJ—

Daniel Jacobson; BJ—Bill Jones; MLM—Margaret Mann; RJM—Rocky Milburn; HR—Heather Riggins; JR—John Riggins; MPS—Pat Stallings; MDW—Morris Williams; MW—Mary Wood.

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EASTERN RIDGE AND VALLEY REGION—The weather of the season was exceptionally dry with no major fronts passing through to concentrate the migration. Several species of waterfowl and some boreal species lingered later than usual. The passerines observed a mostly on-schedule migration.

Loon-Merganser: Common Loon: 26 Mar. (2), 28 Apr. (1) BL (MD, SG). *DOUBLE-CRESTED CORMORANT:* 25 Apr. (1) NL (LS); 1 May (2) HRA (LD). Great Blue Heron: 17 Mar. (16) SB (LD); 24 Apr. (1) BL (MD, JW). Green Heron: 24 Mar. (1) Oak Ridge (GM). Little Blue Heron: 19 Apr. (1 adult) AM (GLB). Cattle Egret: 20 Apr. (2) SB (KLD); 26 Apr. (6) HRA (KLD); 15 May (2) CkL (MDW). Great Egret: 1 Apr. (1) HRA (GLB); 12 Apr. (3) South Pittsburg (KLD); 26 Apr. (1) AS (DL); 7 May (1) SB (LD). Yellow-crowned Night Heron: 12 Apr. (2) AM (KLD); 16 Apr. (7) KP (RL). Least Bittern: 19 Apr. (1) FLL (Mrs. Guy Smith); 1 May (1) AM (George Mayfield). American Bittern: 20 Mar. (1) MP (GLB, DRJ, LD); 1-14 Apr. (1-2) AS (DL); 25 Apr. (1) LTR (ABS, MDW); 1 May (3) AM (DRJ, et al); 2 May (1) McP (MDW). Gadwall: 2 May (2) NL (LS). Green-winged Teal: 30 Mar. (2) AS (DL). Blue-winged Teal: 23 Mar. (287) SB, HRA (KLD). American Wigeon: 8 May (1) SB (LD). Northern Shoveler: 4 May (2) SB (KLD). Greater Scaup: 1 May (2) SB (LD). Lesser Scaup: 11 Apr. (172) SB (LD); 6 May (1) JC (JS). Hooded Merganser: 11 Apr. (1) AS (GE, JS). Common Merganser: 22 Apr. (1) AS (MD, SG). Red-breasted Merganser: 8 May (2) BL (GE, GW, DL, RL); 8 May (1) SeV (DRJ).

Vulture-Sandpiper: Turkey Vulture: 31 Mar. (32 at roost) Daus (LSF). Sharp-shinned Hawk: 16 Mar. (1) SB (KLD); 23 Mar. (1) HRA (KLD). Cooper's Hawk: 21 Mar. (1) SM (LBA); 13 Apr. (1), 18 Apr. (2) JC (DL, JS, ES). Broad-winged Hawk: 28 Mar. (1) ALM (GLB). Bald Eagle: 3 Apr. (1 adult) NL (Tony Collins fide DRJ). Marsh Hawk: 1 May (1) HRA (LD, et al). Osprey: 2 Apr. (1) AS (DL); 15 May (4) NL (LSF). *MERLIN:* 4 Apr. (1) NL (LS). *RUFFED GROUSE:* 27 Mar. (1) Lookout Valley (LMJ). Sandhill Crane: 17 Mar. (4) SB (LD); 21 Mar. (1) Sweetwater (fide JBO); 11 Apr. (6) SM (LBA). King Rail: 5 Apr. (2) AM (KD); 19 Apr. (5 fresh eggs in water) AM (GLB); 8 May (3) AM (DRJ). Virginia Rail: 16 Apr. (1), 5 May (2 nests) KP (RL, FJA); 28 Mar. (3) AlM (MDW). Sora: 3 Apr. (1) AS (GE, GW, DL, RL); 4 Apr. 1 May, 8 May (1) AM (DRJ); 5 Apr. (2) LTR (ABS, MDW). Semipalmated Plover: 8 May (3) SeV (DRJ); 6-7 May (1) UTBCF (MDW). Killdeer: 4 Apr. (4 young) K (GM). American Golden Plover: 1 Apr. (1), 2-4 Apr. (2) SB (KLD, et al). American Woodcock: 10 Apr. (adult, 2 young) ALM (GLB); 23 Apr. (2 adults, 2 young) AS (GE, HF); 8 May (1 in courtship flight) AM (DRJ). Common Snipe: 8 May (1) KP (GW). Willet: 25 Apr. (2) NL (LS). *BAIRD'S SANDPIPER:* 24 Apr. (5) BL (MD, JW). Dunlin: 8 May (1) SB (DRJ). Western Sandpiper: 8 May (1) WCo (GE, GW).

Gull-Pipit: Ring-billed Gull: 1 May (15) HRA (LD, et al). Bonaparte's Gull: 3 Apr. (50) CkL (JCH); 24 Apr. (3) NoL (JCH). Common Tern: 1 May (1) ChL (GE, DRJ). Caspian Tern: 11 Apr. (3) SB (LD). Black Tern: 11 Apr. (2) SB (LD). Black-billed Cuckoo: 11 May (1) CH (AG). Barn Owl: 2 active sites (JC). Chuck-will's-widow: 10 Apr. (1) CH (AG). Whip-poor-will: 15 Mar. (10) NoL (JCH). Chimney Swift: 29 Mar. (3) WW (DRJ). Ruby-throated Hummingbird: 11 Apr. (3) TRG (GLB). Willow Flycatcher: 14 May (1) MCP (MDW). Eastern Kingbird: 10 Apr. (1) CB (KD). Tree Swallow: 8 May (12-15) KP (GE, GW, DL, RL). Bank Swallow: 8 May (15) KP (GE, GW, DL, RL). *BROWN-HEADED NUTHATCH:* regular (2) McD (BRW, DRJ). Water Pipit: 7 May (4) UTBCF (MDW). House Wren: 15 Apr. (1) Erwin (GS). Long-billed Marsh Wren: 2 May (1) AM (DRJ, et al); 8 May (1) KP (GE, GW, DL, RL). Short-billed Marsh Wren: 19 Apr. - 5 May (4 records) CH (KLD, GLB, DRJ). Gray Catbird: 21 Mar. (1) CB (KD). Hermit Thrush: 20 Apr. (1) ALM (GLB). Veery: 12 May (1) ALM (GLB). Blue-gray Gnatcatcher: 29 Mar. (1) WW (DRJ); 19 Apr. (111) TRG (KLD). Ruby-crowned Kinglet: 6 Apr. (43) TRG (KLD). Water Pipit: 16 Apr. (2) SB (KLD).

Vireo-Sparrow: White-eyed Vireo: 4 Apr. (2) MP (GLB). Solitary Vireo: 22 Apr. (1) ALM (GLB); 1 May (1) CH (GLB). *PHILADELPHIA VIREO:* 4 May (1) JC (MD, HD, SG). Warbling Vireo: 1 May (2) HRA (FJA, et al). Black-and-white Warbler: 29 Mar. (1) CH (AG). Prothonotary Warbler: 4 Apr. (3) MP (GLB). Blue-winged Warbler: 15 May (1) ALM (GLB). Orange-crowned Warbler: 2 May (1) JC (DL). Black-throated Blue Warbler: 10 May (1) TRG (KLD). Black-throated Green Warbler: 26 Mar. (1) CH (AG). Cerulean Warbler: 19 Apr. (20) TRG (KLD). Blackburnian Warbler: 10 May (1) TRG (GLB). Chestnut-sided Warbler: 20 Apr. (1) ALM (GLB). Blackpoll Warbler: 3 Apr. (1) Daus (LSF). Prairie Warbler: 7 Apr. (1) ALM (GLB). Louisiana Waterthrush: 29 Mar. (1) Erwin (DL, JS, GS). Common Yellowthroat: 4 Apr. (5) MP (GLB). Wilson's Warbler: 15 Apr. (1) JC (DL). Bobolink: 1 May (100) SeV (LSF); 5-9, 18 May (100-150) Blount Co (MDW, Holly Overton). Rusty Blackbird: 24 Apr. (6) AS (GE, HF). Indigo Bunting: bird from last season left 19 Apr. (1) Anderson Co (Margaret Thompson). Dickcissel: 5 May (2) UTBCF (MDW); 2 May (1) HRA (LD). *EVENING GROSBEAK:* through period (several flocks 5-15) Upper E. Tenn. (GE). Purple Finch: 26 Apr. (3) JC (JS). *HOUSE FINCH:* birds from last season last seen 8 Apr. (10-12) K (Robert and Lavada Harris). Pine Siskin: 11 May (7) CH (Janet Phillips). *RED CROSSBILL:* 2 Apr. (2) JC (MD); 2 May (3) McD (BRW, Bill Jones). Savannah Sparrow: 12 May (1) SB (KLD). White-crowned Sparrow: 7 May (2) JC (JS). Swamp Sparrow: 11 May (1, dead) CH (DRJ). Grasshopper Sparrow: 5-7 May (3 singing birds) UTBCF (MDW).

Locations: ALM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BL—Boone Lake; CB—Chickamauga Battlefield, Ga.; CH—Chattanooga; CkL—Cherokee Lake; FLL—Fort Loudon Lake; HRA—Hiawassee River Area; JC—Johnson City; KP—Kingsport; K—Knoxville; LM—Lookout Mountain, Ga.; McP—McClure Pond, Knox Co.; MP—Morse Pond, Ga.; McD—McDonald; NL—Nickajack Lake; NoL—Norris Lake; SB—Savannah Bay; SeV—Sequatchie Valley; SM—Signal Mountain; TRG—Tennessee River

Gorge; WCo—Washington County; WW—Wildwood, Ga.; LTR—Little Tenn. River, Monroe Co.; UTBCF—U. T. Blount Co. Farm.

Observers: FJA—Fred J. Alsop; LBA—Lloyd and Betty Anderson; GLB—Gary L. Bayne; MD—Martha Dillenbeck; HD—Helenhill Dove; KD—Ken Dubke; KLD—Ken and Lil Dubke; LD—Lil Dubke; GE—Glen Eller; HF—Harry Farthing; AG—Anne Gibson; SG—Sally Goodin JCH—J. C. Howell; DRJ—Daniel R. Jacobson; LMJ—Lemuel M. Jacobson; RL—Richard Lewis; DL—Dick Lura; GM—Gary Muffly; JBO—J. B. Owens; ES—Ed Schell; LS—Lee Shafer; LSF—Lee Shafer Family; JS—Jake Slonaker; AS—Allan Smith; GS—Glen Swofford; GW—Gary Wallace; JW—Jane Whitehead; MDW—Morris D. Williams; BRW—Dick Wodzenski.

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EASTERN MOUNTAIN REGION—The weather during the end of March and early April was unseasonably warm, with several days in the middle 80's. The precipitation for the month of April was significant in the fact that here in Elizabethton we only had a total of 0.23 inches of rainfall while the past 40 years of TVA records show that 3.50 is the average. The early warm temperatures resulted in several species having early nesting success. Our last "cool" spell came during early May with the last "killing" front coming on 4 May. We had no major weather "fronts" to move through the area, therefore no real big migratory "pushes" were noted.

The Goshawk that was first seen back on 4 Oct. 1975, was last seen on 24 April 1976. The occurrence of this bird all winter raises some very interesting speculations! Another noteworthy occurrence here was the increase in the overall individual sightings of the Blackpoll Warbler.

Loon-Hawk: Common Loon: 17 Apr. (2) RC (GE, LRH), 22 Apr. (1) WatR (GW, DL), very low numbers this period. Green Heron: 1st returned 15 Apr. (1) RC (ES, LRH). Great Egret: 18 Apr. (1) WatR (GE, GW), 24 Apr. (1) RC (LRH, JM). *SNOWY EGRET:* 18 Apr. (1) WatR (GE, GW). Yellow-crowned Night Heron: 9 May (1) HS (HF). Green-winged Teal: 21 Mar. (1) HS (HF). American Wigeon: last seen 17 Apr. (2) WatR (GE, LRH). Northern Shoveler: 19 Mar. (10) RC (RL, DL). Ring-necked Duck: last seen 11 Apr. (3) WatR (GE). Lesser Scaup: last seen 8 May (3) WatR (HF). Ruddy Duck: 3-10 Apr. (1) WatR (ETOS). Black Vulture: 26 Apr. (1) HM (ES, LRH). *GOSHAWK:* last seen on 24 Apr. (1) RC (LRH, JM), probably the same bird that spent winter in the area. Sharp-shinned Hawk: 23 Mar., 24 Apr. (1) Erwin (GS); 4 May (1) RM (ES). Cooper's Hawk: 24 Apr. (1) Erwin (GS); 26 Apr. (1) HM (ES). Red-shouldered Hawk: 16 Apr. (1) IMG (SG). Broad-winged Hawk: 1st returned 5 Apr. (1) Eliz (HF). Marsh Hawk: 24 Apr. (1) Unicoi (GE, HF).

Osprey-Vireo: Osprey: 1st returned 7 Apr. (1) WagIs (HF). Solitary Sandpiper: 1st returned 11 Apr. (2) WatR (HF). Pectoral Sandpiper: 3 Apr. (3) WagIs (HF). Dunlin: 4 May (4) SHL (DW). Herring Gull: 17 Apr. (39) RC (LRH, GE). Ring-billed Gull: 21 Mar. (27) WatL (JS). Yellow-billed Cuckoo: 1st returned 16 Apr. (1) IMG (SG). Barn Owl: 2 separate pairs (with young) in the Eliz. Area (GE, GW, et al). Great Horned Owl: 10 Apr.

(1 killed) HM (fide LRH). Barred Owl: 16 Apr. (1) IMG (SG); 4 May (1) RM (ES). Chuck-will's-widow: 1st returned 24 Apr. (1) MC (GE). Chimney Swift: 1st returned 3 Apr. (1) Eliz (GE, GW, DL). Red-headed Woodpecker: 4 May (1) SHL (DW). Least Flycatcher: 1st returned 24 Apr. (3) RM (FWB). Tree Swallow: 22 Apr. (3) WagIs (GW). Bank Swallow: 4 May (2) RC (LRH, ES). Purple Martin: 1st returned 16 Mar. (4) Eliz (GE). Raven: 1-5 regular on RM thru-out period (ETOS). Hermit Thrush: last seen 19 Apr. (1) WatL (ES). Veery: 1st returned 4 May (2) RM (FWB)). Loggerhead Shrike: only 1 bird reported all period which is very unusual (JM). Philadelphia Vireo: 9 May (1) IMG (SG).

Warbler-Sparrow: Black-and-white Warbler: 1st returned 3 Apr. (2) Eliz (HF). Swainson's Warbler: 1st returned 17 Apr. with 1-2 pair regular at RCP (GW, GS). Golden-winged Warbler: 1st returned 27 Apr. (1) RM (ES). Blue-winged Warbler: 1st returned 24 Apr. (1) Unicoi (GE, HF). Nashville Warbler: 12-16 Apr. (2) Eliz (GE); 5 May (1) Bri (DW). Yellow-rumped Warbler: last seen 14 May (1) Eliz (HF). Cerulean Warbler: 1st returned 17 Apr. (1) Erwin (GS). Blackpoll Warbler: 1st returned 22 Apr. (2) Eliz (GE, HF) an unusual heavy migration here, normally only 1 or 2 sightings. Pine Warbler: last seen 7 May (1) WibL (GE, JS). Palm Warbler: 1st returned 3 Apr. (1) WibL (ETOS) early return. Wilson's Warbler: 9 May (1) HS (HF). Canada Warbler: 1st returned 24 Apr. (2) RM (FWB). Rusty Blackbird: last seen 17 Apr. (5) HS (HF). Blue Grosbeak: 20 Apr. (1) Eliz (JM); 13 May (1) WatR (HF, GE). Evening Grosbeak: 3 or 4 small flocks (10-12) still in area thru end of period (ETOS). Grasshopper Sparrow: 1st returned 21 Apr. (1) Eliz (GW). Vesper Sparrow: 1st returned 27 Mar. (5) Eliz (GE). White-crowned Sparrow: last seen 26 Apr. (2) SmV (LRH, ES). White-throated Sparrow: last seen 4 May (1) Eliz (HF).

Locations: Bri—Bristol; Eliz—Elizabethton; HM—Holston Mtn.; HS—Hunter Swamp (near Eliz); IMG—Iron Mtn. Gap (near Erwin); MC—Milligan College; RC—Roans Creek; RCP—Rock Creek Park (near Erwin); SHL—South Holston Lake; SmV—Siam Valley (near Eliz); WagIs—Wagners Island (near Eliz); WatL—Watauga Lake; WatR—Watauga River; WibL—Wilbur Lake.

Observers: FWB—Fred Behrend; ETOS—Eliz. Chapter TOS; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee Herndon; DL—Dick Lura; RL—Richard Lewis; JM—John Martin; ES—Ed Schell; GS—Glen Swofford; JS—Jake Slonaker; DW—Diane Wilson; GW—Gary Wallace.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

EMBER, 1976
OL. 47, NO. 4

SMITHSONIAN
APR 4 1977
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THE MIGRANT

A QUARTERLY JOURNAL OF ORNITHOLOGY

FIRST PUBLISHED, JUNE 1930

PUBLISHED BY

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., 7 October 1915

A non-profit, educational, scientific, and conservation organization.

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Annual dues, $4.00; Sustaining, $7.50; Life, $100.00; Student, $3.00; Family, $5.00; (chapters may collect additional fees to cover local expenses). Dues, contributions, and bequests are deductible from Federal income and estate taxes. Back numbers may be had from Dr. James T. Tanner, Rt. 28, Box 155, Knoxville, Tenn. 37920. Correspond with the Treasurer for subscriptions, memberships, and changes of address.

Published quarterly (March, June, September, and December). Printed by Mallicote Printing Inc., 509-511 Shelby Street, Bristol, Tennessee 37620, U.S.A. Postage paid and mailed at Elizabethton, Tennessee 37643, U.S.A.

THE MIGRANT

Published by the Tennessee Ornithological Society,
to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

VOL. 47 DECEMBER, 1976 NO. 4

THE 1973 FORAY: BENTON COUNTY

FRED J. ALSOP, III: FORAY DIRECTOR

Thirty-one hard-core birders from across the State assembled at Nathan Bedford Forrest State Park near Camden for the third annual T.O.S. Foray. Benton County was the study area for this year's foray. As in previous years, daily birding trips were to be made through all parts of the county with records being made of all individual birds detected during the counting period, 25-28 May. Compilations were made at the end of each day with emphasis on daily field lists, roadside count censuses, and the location of nests. The Yellow and Prairie Warblers were chosen the Foray birds.

Don and Gina Manning were the assistant directors of the foray and saw to the countless tasks of providing materials, laying out roadside routes, arranging publicity, obtaining permission of land-owners, etc., prior to the arrival of the birders. They had everything well in hand but the weather. Skies were clear to partly cloudy on Friday and Saturday with temperatures ranging from the mid-60's to the low 80's, but Sunday brought rain, and by noon it was so heavy most birders were indoors. By sunset Sunday most were homeward bound, making this the briefest foray of the three.

Benton County is located along the west bank of the Tennessee River (Kentucky Lake) in West Tennessee. The river forms its northern and eastern boundaries, Decatur County its southern, and Carroll and Henry Counties its western border. The County is a low-lying area of approximately 350 square miles with most elevations ranging between 300-500 feet. It is a sparsely populated region with an estimated population of 15,000. The land is about equally divided agriculturally between cultivated lands, pasture lands, and small woodlots of mixed hardwoods and pines.

There are several large tracts that are productive for the birder including Nathan Bedford Forrest State Park and Natchez Trace State Park and Forest. The Duck River and Big Sandy units of the Tennessee National Wildlife Refuge have already produced many interesting records of rarely recorded species in the State. The birding is especially good during spring and fall migrations and in the winter months for shorebirds, waterfowl, and raptors. The many miles of shoreline along Kentucky Lake with willows, marshes, exposed mudflats when the lake level drops, as well as the surface of the water itself, promise a potential for producing many important records, especially during the migratory and breeding seasons.

THE 1973 FORAY SPECIES LIST

The following annotated species list was edited and compiled from all the reports received from the Foray participants. The following points should be noted with regard to the species listed, and to their numbers: 1) most of the birds are permanent and/or summer residents and, therefore, may be breeding in Benton County; *but* several are late transients, etc., and 2) the numbers following the species name indicate the total number of observations made of that species and *should not* be considered the number of individuals of that species present. For example, the 91 Killdeer reported means this species was recorded on 91 different occasions, but not that 91 different Killdeer were known to be present in the County during the Foray. There is wide, and sometimes overlapping, coverage of the area by the participants during the counting period. Where only one bird represents its species on the list, and/or where several individuals of one species were reported by only one party, the name(s) of the observer(s) appears in the list. Species reported, but not accepted by the directors, do not appear in the list which follows. Scientific names have been omitted to save print space.

Great Blue Heron—8; Green Heron—42; Little Blue Heron—4; Cattle Egret—1, John Conder; Black-crowned Night Heron—2, Henry and Helen Dinkelspiel; Yellow-crowned Night Heron—1, Fred Alsop; Least Bittern—1, Fred Alsop, Don and Gina Manning; Mallard—35, domestic or wild?; Blue-winged Teal—10; Wood Duck—85; Scaup (species?)—1, transient, Dinkelspiels; Hooded Merganser—1, transient?, C. P. Nicholson and Morris Williams; Turkey Vulture—60; Black Vulture—7; Sharp-shinned Hawk—1, John Elson; Red-tailed Hawk—13; Red-shouldered Hawk—7; Broad-winged Hawk—15; American Kestrel—2; Bobwhite—388; Turkey—7; American Coot—1, Fred Alsop, Don and Gina Manning; Semipalmated Plover—2, transient; Killdeer—91; American Woodcock—1, Ken and Lil Dubke; Spotted Sandpiper—5, transient; Solitary Sandpiper—2, transient; Pectoral Sandpiper—5, transient; White-rumped Sandpiper—20, transient; Least Sandpiper—4, transient; Semipalmated Sandpiper—45, transient; Ring-billed Gull—1, transient, Fred Alsop, Don and Gina Manning; Tern (*Sterna* sp.)—7, transient, Fred Alsop, Don and Gina Manning; Least Tern—1, transient?, Fred Alsop, Don and Gina Manning; Rock Dove—9; Mourning Dove—532; Yellow-billed Cuckoo—33; Black-billed Cuckoo—3; Screech Owl—3; Barred Owl—8; Chuck-will's-widow—21; Whip-poor-will—19; Common Nighthawk—19; Chimney Swift—289; Ruby-throated Hummingbird—16; Belted Kingfisher—6; Common Flicker—51, this number when compared with that of the following species perhaps indicates some voice misidentifications between the two; Pileated Woodpecker—39; Red-bellied Woodpecker—163; Red-headed Woodpecker—1, C. P. Nicholson and Morris Williams; Hairy Woodpecker—9; Downy Woodpecker—70; Eastern Kingbird—161; Great Crested Flycatcher—139; Eastern Phoebe—47; Acadian Flycatcher—77; Willow Flycatcher—6, is the species continuing to extend its breeding range into West Tennessee?; Eastern Wood Pewee—120; Horned Lark—12; Tree Swallow—3, transients?; Bank Swallow—8, transients?; Rough-winged Swallow—13; Barn Swallow—336; Cliff Swallow—834; Purple Martin—172; Blue Jay—372; Common Crow—141; Carolina Chickadee—121; Tufted Titmouse—275; White-breasted Nuthatch—6; Bewick's Wren—5; Carolina Wren—104; Northern Mockingbird—327; Gray Catbird—50; Brown

Thrasher—121; American Robin—160; Wood Thrush—172; Swainson's Thrush —2, transient; Eastern Bluebird—150; Blue-gray Gnatcatcher—88; Cedar Waxwing—10; Loggerhead Shrike—40; Starling—135; White-eyed Vireo—228; Yellow-throated Vireo—51; Red-eyed Vireo—96; Warbling Vireo—3; Black-and-white Warbler—15; Prothonotary Warbler—67; Swainson's Warbler —1, Gary O. Wallace; Worm-eating Warbler—9; Blue-winged Warbler—16; Tennessee Warbler—1, transient, Ben and Lula Coffey; Parula Warbler—5; Yellow Warbler—8; Black-throated Green Warbler—1, transient?, C. P. Nicholson and Morris Williams; Cerulean Warbler—8; Yellow-throated Warbler—16; Bay-breasted Warbler—3, transient; Blackpoll Warbler—6; Pine Warbler—47; Prairie Warbler—129; Ovenbird—7; Louisiana Waterthrush—28; Kentucky Warbler—73; Connecticut Warbler—1, transient, C. P. Nicholson and Morris Williams; Mourning Warbler—1, transient, Ben and Lula Coffey; Common Yellowthroat—190; Yellow-breasted Chat—167; Hooded Warbler—6; Wilson's Warbler—1, transient, Fred Alsop, Don and Gina Manning; Canada Warbler—1, transient, Fred Alsop, Don and Gina Manning; American Redstart—4; House Sparrow—139; Eastern Meadowlark—374; Red-winged Blackbird—969; Orchard Oriole—210; Common Grackle—1,169; Brown-headed Cowbird—343; Scarlet Tanager—31; Summer Tanager—166; Cardinal—599; Blue Grosbeak—20; Indigo Bunting—444; Dickcissel—11; American Goldfinch—119; Rufous-sided Towhee—263; Grasshopper Sparrow—7; Bachman's Sparrow—1, George Mayfield and Tony Koella; Chipping Sparrow—44; Field Sparrow—150; White-crowned Sparrow—1, transient, C. P. Nicholson and Morris Williams; Song Sparrow—3, this is the western-most known record in the State for this species during the breeding season—many birders saw these birds near Eva along the lake shore.

The 134 species of birds reported are represented by 13,644 individual observations. The twenty most commonly contacted species were, in descending order of abundance: Common Grackle (1,169), Red-winged Blackbird (969), Cliff Swallow (834), Cardinal (599), Mourning Dove (532), Indigo Bunting (444), Bobwhite (388), Eastern Meadowlark (374), Blue Jay (372), Brown-headed Cowbird (343), Barn Swallow (336), Northern Mockingbird (327), Chimney Swift (289), Tufted Titmouse (275), Rufous-sided Towhee (263), White-eyed Vireo (228), Orchard Oriole (210), Common Yellowthroat (190), Wood Thrush (172), and Summer Tanager (166).

The preceding list raises several questions that West Tennessee birders have the opportunity to seek answers to as they bird Benton and the surrounding counties.

Has the presence of the Willow Flycatcher in the nesting season been overlooked because the species arrives in mid-May after many T.O.S.'ers have slowed their birding activities, or is it newly arrived and just extending its breeding range into this area of the State? The six observations of this species coupled with the excellent habitat especially that along the lake shore similar to that used by the bird in East and Middle Tennessee makes it reasonable to expect confirmed nesting records should be forthcoming from west of the Tennessee River soon.

The small number of Warbling Vireos reported (3) compared to the abundance of Orchard Orioles (210) may suggest the song of the oriole, which may be more familiar to most Tennessee birders, is being confused with that of the vireo's which is similar. Further work should give us a better concept of the relative status of these two species.

The Bachman's Sparrow record by Mayfield and Koella indicates a possible new location for this most uncommon nesting species. Several other parties went to the location, but though the habitat looked "right" for the species, were unable to locate the singing bird. Because of its increasing rarity in the State, some efforts should be made to determine how many individuals are present in the county.

The locating of Song Sparrows on the west bank of the Tennessee River is exciting news. The previous western-most breeding record of this bird is from the Nashville area. The birds were seen by many in proper nesting habitat along the river bank in a small boat access area near Eva.

A close reading of the species list and the numbers of individual observations will show this Foray raised additional questions and challenges for the serious birder working the avafauna of this area.

THE BREEDING BIRD SURVEY

Censuses over areas of known size were conducted to learn something of the density of the breeding bird population in Benton County. Roadside counts were used to obtain this information. Four routes had been established for the Foray and each was run only once, on Saturday, 26 May. Poor weather prohibited planned runs on Sunday. Each count began at 5:10 a.m. (CDST) and was run over a preselected 24.5 mile route with the observer stopping each 0.5 mile and recording all birds detected for three minutes for each of 50 such stops. These routes were censused by the following birders: #1) Ken and Lil Dubke, #2) Henry and Helen Dinkelspiel with Ernie Restivo observing, #3) George Mayfield and Tony Koella, and #4) Lloyd and Helen Clayton.

Species totals for each of the four censuses appear in Table 1. The Bay-breasted Warbler and the Blackpolls are late transients. Eighty-seven species represented by 2,378 individuals were recorded. The ten most common birds on the Benton County roadsides in decreasing order of abundance as shown by the four counts are: Common Grackle (182), Red-winged Blackbird (138), Mourning Dove (129), Blue Jay (127), Bobwhite (115), Cardinal (95), Indigo Bunting (91), Eastern Meadowlark (90), Tufted Titmouse (78), and Barn Swallow (78).

BREEDING BIRDS RECORDS THROUGH NEST LOCATION

As in other forays, this year's participants were alert in their daily birding activities in watching for and recording as many nests as possible. Nests are not easily found even when one decides to look for them, but during this shortened foray 378 nests of 17 species were located (351 of which belonged to a single colonial nesting species, the Cliff Swallow, and were clustered in three locations—140 under the bridge over Birdsong Creek and 210 under the U.S. 70 bridge over the Tennessee River). Cornell University nesting card program cards were completed for each observation. A summation of the breeding records thus gained are presented as follows:

NESTS FOUND DURING THE 1973 FORAY. E = eggs, Y = young. Wood Duck: 7Y; 7Y; 5Y; 5Y; 4Y. Broad-winged Hawk: 1E—1Y. Bobwhite:

TABLE 1

RESULTS FROM FOUR DIFFERENT ROADSIDE COUNTS

Route	#1	#2	#3	#4	Total	Route	#1	#2	#3	#4	Total
SPECIES	NUMBER/50 STOPS					SPECIES	NUMBER/50 STOPS				
Green Heron	1	0	1	3	5	Gray Catbird	3	2	0	2	7
Black-cr.Nt. Heron	0	2	0	0	2	Brown Thrasher	2	3	2	8	15
Wood Duck	3	0	3	3	9	American Robin	3	24	13	3	43
Turkey Vulture	0	1	8	3	12	Wood Thrush	14	5	13	10	42
Black Vulture	0	0	1	0	1	Eastern Bluebird	7	6	4	3	20
Red-tailed Hawk	0	1	1	1	3	B-g. Gnatcatcher	3	0	10	0	13
Red-shld. Hawk	0	0	2	0	2	Cedar Waxwing	0	1	0	1	2
Broad-wg. Hawk	1	0	1	0	2	Loggerhd. Shrike	0	3	1	0	4
Bobwhite	21	23	52	19	115	Starling	11	15	11	0	37
Killdeer	0	4	7	1	12	Wt-eyed Vireo	17	12	19	14	62
Rock Dove	0	0	2	0	2	Yel-thd. Vireo	2	2	2	0	6
Mourning Dove	22	52	50	5	129	Red-eyed Vireo	3	4	1	4	12
Yellow-b. Cuckoo	0	2	3	2	9	Bl-&-wt. Warbler	0	0	2	0	2
Black-b. Cuckoo	1	0	0	0	1	Prothon. Warbler	0	0	2	1	3
Barred Owl	0	0	0	2	2	Worm-eat. Warbler	2	0	0	0	2
Chuck-w-widow	0	1	0	0	1	Parulla Warbler	1	0	0	0	1
Whip-p-will	5	0	1	0	6	Yellow Warbler	0	0	1	0	1
Chimney Swift	5	35	11	9	60	Cerulean Warbler	1	0	0	0	1
R-t Hummingbird	1	0	1	0	2	Bay-breast. Warb.	0	1	0	0	1
Belt. Kingfisher	0	0	1	0	1	Blackpoll Warbler	0	0	2	0	2
Common Flicker	3	3	2	1	9	Pine Warbler	11	0	3	0	14
Pileated Wpkr.	1	2	2	7	12	Prairie Warbler	9	4	12	8	33
Red-bel. Wpkr.	15	15	16	4	50	Ovenbird	1	0	0	0	1
Hairy Woodpecker	0	0	2	0	2	La. Waterthrush	4	0	1	0	5
Downy Woodpecker	1	7	6	2	16	Kentucky Warbler	3	1	7	3	14
E. Kingbird	4	9	8	3	24	C. Yellowthroat	14	9	19	5	47
Gr. Crest. Flycat.	2	18	11	8	39	Yel-bred. Chat	13	8	13	16	50
E. Phoebe	4	4	4	0	12	Hooded Warbler	1	0	0	0	1
Acadian Flycat.	6	0	0	2	8	House Sparrow	1	7	22	0	30
Willow Flycatcher	2	0	0	0	2	E. Meadowlark	11	39	37	3	90
E. Wood Pewee	6	7	13	3	29	R-w. Blackbird	13	57	57	11	138
Horned Lark	0	0	4	0	4	Orchard Oriole	11	14	0	4	29
Rough-w. Swallow	0	0	2	0	2	Common Grackle	7	88	76	11	182
Barn Swallow	9	27	37	5	78	Br-hd. Cowbird	7	7	14	1	29
Purple Martin	2	19	20	0	41	Scarlet Tanager	3	1	3	1	8
Blue Jay	26	54	33	14	127	Summer Tanager	12	5	5	10	32
Common Crow	5	28	17	5	55	Cardinal	24	26	31	14	95
Carolina Chickadee	5	3	10	2	20	Blue Grosbeak	0	1	4	0	5
Tufted Titmouse	25	15	20	18	78	Indigo Bunting	17	21	37	16	91
Wt.-br. Nuthatch	0	1	0	0	1	Amer. Goldfinch	2	3	11	2	18
Bewick's Wren	0	0	1	0	1	Ruf-sd. Towhee	17	17	28	8	70
Carolina Wren	4	8	5	6	23	Bachman's Sparrow	0	0	1	0	1
N. Mockingbird	5	23	13	7	48	Chipping Sparrow	2	6	5	0	13
						Field Sparrow	13	7	21	7	48

1E. Yellow-billed Cuckoo: nest contents unknown. Downy Woodpecker: nest contents unknown. Eastern Kingbird: adult incubating. Eastern Phoebe: 5E; nest complete—contents unknown; adult incubating; 3Y. Acadian Flycatcher: nest half-completed; nest almost complete—3 nests at this stage; 2E. Cliff Swallow: nest contents unknown. Prairie Warbler: 3Y—approximately 10 days old being fed by adult. Red-winged Blackbird: 1E—3Y.

THE FORAY BIRD PROJECT

Two species, the Yellow Warbler and the Prairie Warbler were selected as the Foray birds with the intent of recording as much information on their status in Benton County as possible. Because of the inclement weather on Sunday the only information obtained was the number of observations of each species (Yellow Warbler—8 and Prairie Warbler—129) made the first days of the project. From this small bit of data it is somewhat surprising that the Yellow Warbler is so uncommon. There appears to be much suitable habitat at present for this species—to the eye, very similar to what it is using in surrounding regions of Tennessee—but few birds were detected.

PARTICIPANTS

The following birders were registered for the foray: Fred J. Alsop, III, Helen Clayton, Floyd Clayton, Ben Coffey, Lula Coffey, John R. Conder, Helen Dinkelspiel, Henry Dinkelspiel, Ken Dubke, Lil Dubke, Elizabeth Elson, John Elson, David Hassler, Robbie Hassler, Tony Koella, Don Manning, Gina Manning, George R. Mayfield, Mark Mayfield, Rad Mayfield, Chuck Nicholson, Arlo Smith, Noreen Smith, Jim Tanner, Nancy Tanner, Jim Waldron, Martha Waldron, Brenda Wallace, Gary O. Wallace, Morris D. Williams.

ACKNOWLEDGMENTS

Gratitude is expressed to Don and Gina Manning who, as assistant foray directors, saw to the countless items, large and small, that meant so much in assuring a successful Foray. My thanks, too, to the many excellent birders from across Tennessee for once again working as hard at a favorite avocation to assemble the preceding ornithological information on another county of our State not frequently visited by birders. The Foray *is* birding at its best and *you* should be a part of the next one. Good birding.

Department of Biology, Kingsport University Center, University Avenue, Kingsport, Tennessee 37660.

THE SIXTY-SECOND ANNUAL SPRING TOS MEETING

REELFOOT LAKE

6, 7, 8 MAY 1977

Headquarters will be at Ellington Hall. Rooms at the state-owned Air Park Inn and the Spillway Motel will be held for TOS members until 26 March. Additional information will be furnished later by the host chapter, Memphis. If further information is needed, contact Dr. Julian Darlington, 3112 Glenfinnan Road, Memphis, Tennessee 38128.

CHANGES IN THE NAMES OF SOME TENNESSEE BIRDS DUE TO RECENT TAXONOMIC DECISIONS

The Thirty-Third Supplement to the *American Ornithologists' Union Checklist of North American Birds* (1976, *Auk* 93:875-879) covers several changes in the names of North American birds. In this paper, I have extracted and condensed the material in the Supplement that relates to birds that have been reported from Tennessee. The purpose of this paper is to assist both contributors to *The Migrant* and readers who may be puzzled by the appearance of new names in *The Migrant*. Most of the changes involve the scientific or Latin names; only a few English names are changed.

I have included only those changes that occur at the species level; since we rarely deal with the subspecies in *The Migrant*. Readers who are interested in more details, including the changes that relate to other North American birds, or the reasons behind the changes, are referred to the paper cited above, which also cites the works of the many taxonomists whose opinions are reflected in the Supplement.

LIST OF CHANGES

The Latin name of the Green Heron is changed from *Butorides virescens* to *Butorides striatus*. The English name remains the same.

The Black Brant which was formerly considered a full species, *Branta nigricans*, is now considered a subspecies of the Brant. The Latin name for the species is *Branta bernicla*, and the English name is Brant.

The English name for the Tree Ducks is changed to Whistling-Duck. For example, the Fulvous Tree Duck becomes the Fulvous Whistling-Duck. There is no change in the Latin names.

The Latin name of the Mississippi Kite is changed from the former incorrect spelling, *Ictinia misisippiensis*, to the correct spelling, *Ictinia mississippiensis*. The English name remains the same.

The Latin name of the Caspian Tern is changed from *Hydroprogne caspia* to *Sterna caspia*. The English name remains the same.

The Latin name of the Red-bellied Woodpecker is changed from *Centurus carolinus* to *Melanerpes carolinus*. There is no change in the English name.

The Latin name of the Hairy Woodpecker is changed from *Dendrocopos villosus* to *Picoides villosus*. The Latin name of the Downy Woodpecker is changed from *Dendrocopos pubescens* to *Picoides pubescens*. The Latin name of the Red-cockaded Woodpecker is changed from *Dendrocopos borealis* to *Picoides borealis*. The English names of these woodpeckers remain the same.

The Latin name of the Long-billed Marsh Wren is changed from *Telmatodytes palustris* to *Cistothorus palustris*. The English name remains the same.

The Latin name of the Common Redpoll is changed from *Acanthis flammea*. The Latin name of the Pine Siskin is changed from *Spinus pinus* to *Carduelis pinus*. The Latin name of the American Goldfinch is changed from *Spinus tristis* to *Carduelis tristis*. The English names of these finches remain the same.

Contributors to *The Migrant* should adopt these changes in nomenclature along with those covered in the Thirty-Second Supplement (1973, *Auk* 90: 411-419 and 887) which Alsop (1973, *The Migrant*, 44:29-33) has summarized. These two Supplements update the nomenclature of the last edition of the *A.O.U. Checklist of North American Birds* (1957, 5th Edition), which is the nomenclature found in modern field guides.

In summary, the currently accepted nomenclature for Tennessee birds is not available in any single source, but must be drawn from several sources. The sources most readily available to most readers are: (1) a recent field guide such as, *Birds of North America*, Robbins, et al, New York, Golden Press; (2) Alsop's 1973 paper (note that in Table II, p. 30 of Alsop's paper the genus of the Henslow's Sparrow should be *Ammodramus*, not *Calcarius*)*; and (3) this article.

Morris D. Williams, Tennessee Heritage Program, Department of Conservation, Suite 601, 1720 West End Building, Nashville 37203.

**Editor's Note:* Correction made in *The Migrant*, 44:76, 1973.

BOOK REVIEWS

A.B.A. CHECKLIST: BIRDS OF CONTINENTAL UNITED STATES AND CANADA. 1975. Checklist Committee of the American Birding Association. 64p. $3.50. Available from A.B.A., P. O. Box 4335, Austin, Texas 78765. A committee chaired by Chandler S. Robbins prepared this complete up-to-date checklist of the bird species that have been recorded in the 49 Continental United States and Canada. There are 794 species listed. Given for each species are the common and scientific names, a symbol to denote present status, a bracket for your personal check mark and a blank space to enter the date and location of your first observation. Species recorded fewer than ten times during the 20th century are listed separately. For N. A. bird listers, this little book provides a convenient way of keeping up with your bird list.

Gary O. Wallace

OWLS OF THE WORLD/THEIR EVOLUTION, STRUCTURE AND ECOLOGY. 1976. Edited by John A. Burton. Illustrated by John Rignall. A & W Visual Library, New York. 216 p. $9.95. This book covers anatomy, external features, evolution, distribution, habits, conservation and human relationships for most species of owls. Fourteen ornithologists from Europe provide the factual information in a clear, non-technical language. The book is well illustrated by John Rignall with range maps, 99 full color photographs, and 80 detailed paintings of the rarer species whose nocturnal habits and remote locations have made them difficult to photograph. A species list and a table of owl vocalizations are appended. It is one of the better reference books on owls.

Gary O. Wallace

THE 1976 SPRING FIELD DAYS

MORRIS D. WILLIAMS

This year's total of 215 species is just one species short of last year's all time high count. If we could have included counts from Reelfoot, Lebanon, and Great Smoky Mountains, we could easily have surpassed the previous record.

Counts from 14 areas are tabulated according to geographic position from west to east across the state. Two counts are listed from Columbia. I would like to suggest that chapters with such enthusiasm as Columbia conduct their second count in an adjoining area that is not as well known.

INFORMATION ON THE COUNTS

MEMPHIS: 25 April. Shelby Forest to Coro Lake and Penal Farm. Cloudy: wind 15-25 mph. Memphis Chapter T.O.S., Ben B. Coffey, Jr., Compiler, 672 N. Belvedere, Memphis 38107.

NATCHEZ TRACE STATE PARK AND FOREST: 8 and 9 May. Memphis Chapter T.O.S., Ben B. Coffey, Jr., Compiler, 672 N. Belvedere, Memphis 38107.

LAWRENCE COUNTY: 8 and 9 May. Helen and Lloyd Clayton in the Deerfield vicinity; David Ihrie, Mark Reeves, Damien Simbeck, and Don Simbeck around Loretto; and Morris Williams at Five Points.

COLUMBIA: 1st Count, 24 April. (All day; rain in a.m. then clearing; 60-70°). Four parties with 15 observers: Kenneth Anderson, Dot and Ed Byassee, Mary and William Fuqua, Dan and Gaither Gray, Marsha and Olin Hotchkiss, Anne and Bedford Lockridge, George and Mark Mayfield, Allen and Diane Presnell; and two yard and feeder watchers—Jack Hughes and Cleo Mayfield.

This count appears in the left column under the heading "Colu," and the following counts appears in the right column.

2nd Count, 7-8 May, 1 p.m. - 1 p.m. clear; 40-68°. Three parties with 9 observers; Rachel Garrett, Mary and Tom Guschke, Louise Hardison, Anne and Bedford Lockridge, George Mayfield (compiler of both counts, Maury County Hospital, Columbia 38401), Delton and Paul Porter; and four yard and feeder watchers—Barbara Finney, Dan Gray, Jack Hughes, and Diane Presnell.

Red-throated Loons seen by Mayfield and Porters.

NASHVILLE: 8 and 9 May, 2 days, midnight to midnight; clear, 50-70°. 30 mile radius of Nashville. Clyde D. Anderson, compiler, 1214 McGavock Pike, Nashville 37216.

The Snow Goose was one of the blue morphs. In addition to the birds listed in the table, there were five unidentified terns and seven *Empidonax*. The *Empidonax* listed were identified by song. One of the very late Hermit Thrushers was banded.

MURFREESBORO: 24 and 25 April. Fifteen mile radius of city. Windy, overcast; 55-70°. Twenty-five observers. Anne Hettish, compiler, 1018 Lawndale Dr., Murfreesboro 37130.

1976 SPRING COUNT

	Mem	Nat	Law	Colu		Nash	Murf	Tull	Cook	Chat	Knox	Gree	King	Bris	Eli
Common Loon	--	--	--	--	3	4	--	--	--	2	--	--	1	--	--
Red-throated Loon	--	--	--	--	8	--	--	--	--	--	--	--	--	--	--
Horned Grebe	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Pied-billed Grebe	4	--	--	8	1	4	--	--	--	2	4	--	1	--	7
Dbl.-cr. Cormorant	--	--	--	--	--	1	--	--	--	3	--	--	--	--	--
Great Blue Heron	--	--	--	--	--	--	--	--	1	6	2	1	4	--	1
Green Heron	3	--	3	8	8	42	2	3	1	20	5	4	2	5	9
Cattle Egret	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Great Egret	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Bl.-cr. Night Heron	--	--	--	3	--	47	--	--	--	--	6	--	--	--	--
Yel.cr. Night Heron	6	--	--	--	1	2	2	--	--	1	--	--	4	--	--
Least Bittern	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
American Bittern	--	--	--	--	2	3	--	--	--	3	--	--	2	--	--
Canada Goose	--	--	--	5	43	122	--	13	--	75	9	2	--	--	--
Snow Goose	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Mallard	3	--	--	28	6	56	--	19	7	14	5	5	83	34	17
Black Duck	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--
Gadwall	--	--	--	--	4	--	--	--	--	2	--	--	--	--	--
Pintail	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Green-winged Teal	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Blue-winged Teal	3	--	--	46	27	46	--	--	4	33	4	15	30	--	11
Northern Shoveler	--	--	--	2	--	3	--	--	--	--	--	--	--	--	--
Wood Duck	8	--	--	22	20	48	--	--	4	23	20	8	126	2	35
Redhead	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
Ring-necked Duck	--	--	--	--	1	--	--	--	--	--	--	4	1	--	--
Canvasback	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--
Greater Scaup	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--
Lesser Scaup	11	--	--	--	--	1	--	--	--	1	10	--	--	--	--
Bufflehead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30
Ruddy Duck	16	--	--	1	1	--	--	--	--	--	--	--	--	--	--
Hooded Merganser	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Red-br. Merganser	--	--	--	1	--	--	--	--	--	--	--	--	2	--	--
Turkey Vulture	1	3	14	31	6	67	8	13	1	11	8	9	16	7	9
Black Vulture	3	6	1	16	27	50	14	3	--	5	--	1	35	5	1
Mississippi Kite	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Goshawk	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sharp-sh. Hawk	--	--	--	--	--	3	--	--	--	--	--	--	--	--	1
Cooper's Hawk	--	--	--	1	--	1	--	--	--	1	--	1	--	1	1
Red-tailed Hawk	1	1	13	4	2	23	4	1	4	3	8	--	2	1	2
Red-should. Hawk	--	2	14	--	2	9	--	--	--	1	--	--	--	--	--
Broad-winged Hawk	3	2	1	4	2	5	--	--	--	7	6	--	1	3	5
Marsh Hawk	--	--	--	--	--	--	--	--	3	3	1	--	--	--	1
Osprey	--	--	--	--	--	1	--	--	--	5	2	--	1	--	4
American Kestrel	1	--	12	15	4	41	12	1	2	2	6	1	3	--	2
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	1	--	6
Bobwhite	6	1	37	51	26	191	34	20	36	19	53	26	16	10	44
Turkey	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--
King Rail	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--
Virginia Rail	1	--	--	--	1	--	--	--	--	--	--	--	1	--	--
Sora	--	--	--	5	17	8	--	--	--	1	--	--	1	--	--
American Coot	15	--	--	130	152	47	29	--	--	28	13	10	20	1	2
Semipalmated Plover	--	--	--	--	2	13	--	--	--	2	--	--	--	--	--
Killdeer	10	--	5	27	10	106	18	4	23	10	109	16	53	7	47
American Woodcock	--	--	--	5	1	5	--	--	6	--	1	--	1	--	4
Common Snipe	1	--	--	2	--	3	1	--	--	4	7	4	1	1	3
Upland Sandpiper	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spotted Sandpiper	4	3	--	1	4	52	--	1	--	12	15	2	109	--	14
Solitary Sandpiper	8	2	2	7	2	17	1	--	--	17	9	21	13	1	25
Greater Yellowlegs	--	1	--	8	--	2	--	--	--	7	2	8	1	--	2
Lesser Yellowlegs	4	2	--	24	11	12	1	--	--	22	6	9	2	--	2
Pectoral Sandpiper	--	1	--	2	4	6	--	--	--	1	--	--	--	--	--
Baird's Sandpiper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Least Sandpiper	4	3	--	1	18	131	--	--	--	11	--	--	7	--	1
Dunlin	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--
Semipal. Sandpiper	--	--	--	1	4	14	--	--	--	--	--	--	--	--	--
Herring Gull	--	--	--	--	--	2	--	--	--	--	2	--	1	--	21
Ring-billed Gull	--	--	--	--	--	19	--	--	--	15	6	--	1	--	1
Bonaparte's Gull	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--
Forster's Tern	--	--	--	1	--	5	--	--	--	--	--	--	--	--	--
Common Tern	--	--	--	--	7	2	--	--	--	1	--	--	--	--	--

	Mem	Nat	Law	Colu		Nash	Murf	Tull	Cook	Chat	Knox	Gree	King	Bris	Eli
Caspian Tern	--	--	--	--	--	2	--	--	--	--	3	--	--	--	--
Black Tern	--	--	--	--	2	1	--	--	--	--	--	--	--	--	--
Rock Dove	100	--	12	106	6	125	3	7	12	24	86	--	52	41	34
Mourning Dove	41	3	57	82	11	301	37	36	191	57	233	39	55	44	55
Yellow-billed Cuckoo	--	2	12	1	3	26	--	1	--	1	--	--	2	1	--
Black-billed Cuckoo	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Barn Owl	--	--	--	1	1	1	6	--	--	--	--	--	3	--	2
Screech Owl	--	--	1	--	1	3	4	--	5	1	1	1	3	1	11
Great Horned Owl	--	--	2	4	3	3	--	--	3	--	1	--	1	--	--
Barred Owl	--	--	2	11	3	8	--	--	--	2	--	--	--	--	1
Chuck-will's-widow	1	2	8	4	2	10	--	1	6	1	8	--	1	--	1
Whip-poor-will	--	25	1	11	9	28	--	1	--	1	2	6	--	--	4
Common Nighthawk	--	--	--	3	6	60	6	10	5	4	4	--	22	3	4
Chimney Swift	37	9	22	62	23	447	772	67	156	60	234	26	--	28	193
Ruby-th. Hummingbird	4	3	4	2	1	16	2	--	3	9	7	--	--	2	3
Belted Kingfisher	--	--	3	10	5	28	3	--	1	13	2	1	--	2	12
Common Flicker	1	5	4	5	3	31	16	28	24	12	39	9	--	21	39
Pileated Woodpecker	2	3	13	17	9	37	2	4	5	16	13	3	9	2	15
Red-bel. Woodpecker	10	10	24	32	18	106	9	6	33	24	27	3	10	6	10
Red-hd. Woodpecker	13	--	3	5	6	8	1	--	7	4	--	--	--	1	--
Yel.-bel. Sapsucker	--	--	1	--	--	--	5	--	3	--	--	1	--	--	1
Hairy Woodpecker	1	--	--	8	8	15	1	3	5	1	1	4	--	--	5
Downy Woodpecker	7	2	6	28	24	68	16	2	10	19	12	--	8	6	25
Eastern Kingbird	17	2	21	26	11	83	6	4	7	19	14	6	16	1	19
Great Cr. Flycatcher	9	17	24	14	12	47	1	2	7	17	9	1	6	3	10
Eastern Phoebe	--	1	13	8	4	29	2	1	11	6	22	1	28	13	37
Acadian Flycatcher	9	5	11	5	6	34	--	--	--	10	--	--	2	--	2
Willow Flycatcher	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Least Flycatcher	--	--	--	--	--	1	--	--	--	--	--	--	--	--	4
Eastern Wood Pewee	1	20	15	3	7	58	--	3	1	13	--	--	6	6	3
Olive-sided Flycatcher	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--
Horned Lark	--	--	--	8	2	3	--	--	--	3	1	--	--	--	2
Tree Swallow	9	3	--	153	45	9	--	--	--	8	7	5	37	--	4
Bank Swallow	5	--	--	--	15	4	--	8	--	1	3	--	46	4	--
Rough-winged Swallow	13	2	3	33	65	20	--	1	7	33	29	10	109	13	43
Barn Swallow	95	6	98	143	76	453	78	190	74	52	172	26	366	9	97
Cliff Swallow	--	--	--	2	--	17	--	25	--	3	--	--	7	--	--
Purple Martin	28	20	114	86	18	134	116	45	40	121	80	61	504	--	40
Blue Jay	3	14	45	87	29	251	105	69	156	76	235	25	51	90	233
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Common Crow	14	3	55	92	18	140	49	25	78	49	155	32	101	24	140
Fish Crow	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carolina Chickadee	35	6	16	66	33	113	28	10	27	55	107	7	26	25	67
Tufted Titmouse	37	20	33	75	18	136	11	58	47	57	60	8	41	28	71
Wht.-br. Nuthatch	--	2	--	4	1	14	--	7	8	8	2	--	2	4	8
Red-br. Nuthatch	1	--	--	--	--	2	1	--	3	1	--	--	2	1	2
Br.-head. Nuthatch	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--
Brown Creeper	--	--	--	--	--	--	4	--	2	--	--	--	--	--	2
House Wren	--	--	--	--	--	11	3	1	2	1	12	3	15	18	21
Winter Wren	--	--	--	--	--	--	--	--	2	--	--	1	1	--	11
Bewick's Wren	--	--	--	2	1	8	4	--	6	--	--	--	--	--	--
Carolina Wren	44	11	32	35	12	107	15	6	29	60	131	16	53	22	65
Long-b. Marsh Wren	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
Short-b. Marsh Wren	--	--	--	--	--	--	--	--	1	1	1	--	--	--	--
Mockingbird	8	2	46	48	23	185	81	40	58	18	197	20	70	47	78
Gray Catbird	10	9	13	25	20	67	28	11	30	12	14	5	20	3	22
Brown Thrasher	2	3	22	43	33	76	34	--	48	19	54	8	20	12	28
American Robin	30	11	29	78	25	338	113	78	219	51	365	47	92	171	185
Wood Thrush	12	32	7	14	14	66	3	4	21	33	47	10	36	15	70
Hermit Thrush	--	--	--	--	--	2	--	--	--	--	--	--	--	1	3
Swainson's Thrush	2	12	4	3	8	117	--	1	--	11	8	--	17	--	3
Gray-cheeked Thrush	4	3	--	--	2	9	--	--	--	1	--	--	--	--	--
Veery	--	--	--	2	4	40	2	--	--	--	--	--	4	--	--
Eastern Bluebird	5	9	83	74	9	150	16	24	46	39	50	16	14	2	32
Blue-gr. Gnatcatcher	65	5	10	48	21	79	--	1	11	47	57	5	8	4	28
Golden-cr. Kinglet	--	--	--	--	--	--	--	--	7	--	--	--	5	--	2
Ruby-cr. Kinglet	--	--	--	3	1	15	3	--	--	6	21	4	2	8	23
Cedar Waxwing	--	--	20	--	3	5	30	--	--	28	47	--	2	7	29
Loggerhead Shrike	2	--	8	13	2	24	11	16	4	2	--	--	2	--	--
Starling	61	2	45	230	115	641	319	161	500	85	8471	100	288	334	406
Wht.-eyed Vireo	36	17	24	41	8	106	1	--	27	37	38	6	23	4	37
Yellow-thr. Vireo	9	5	4	8	2	15	--	--	4	25	2	1	2	--	5
Solitary Vireo	--	--	--	--	--	4	--	--	--	1	--	--	4	--	41
Red-eyed Vireo	21	22	21	20	12	118	1	6	19	79	63	--	42	6	49
Philadelphia Vireo	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--

	Mem	Nat	Law	Colu		Nash	Murf	Tull	Cook	Chat	Knox	Gree	King	Bris	Eli
Warbling Vireo	2	2	--	2	1	6	--	--	--	2	--	--	--	--	1
Black-&-wh. Warbler	1	5	--	4	1	8	2	1	1	11	17	--	7	9	44
Prothonotary Warbler	30	3	5	3	4	23	--	--	--	24	3	2	1	--	--
Swainson's Warbler	3	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Worm-eating Warbler	--	4	--	3	3	5	--	1	--	7	5	--	2	4	15
Golden-wgd. Warbler	--	1	--	--	--	1	1	--	--	4	--	--	1	--	--
Blue-wgd. Warbler	1	--	2	19	5	22	1	--	--	5	1	--	--	--	3
Tennessee Warbler	32	40	8	40	26	158	1	10	3	63	14	--	15	1	1
Orange-cr. Warbler	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--
Nashville Warbler	--	1	--	1	1	21	1	--	--	1	1	--	2	--	--
Northern Parula	19	1	3	10	5	10	--	--	--	4	--	--	--	3	30
Yellow Warbler	--	1	--	19	16	33	5	--	--	24	7	1	30	2	37
Magnolia Warbler	--	1	--	--	--	15	--	--	--	1	1	--	--	--	--
Cape May Warbler	--	2	--	2	3	10	--	--	--	7	1	--	17	--	2
Bl.-th. Blue Warbler	--	--	--	--	--	1	--	--	--	--	--	--	1	--	11
Yellow-rumped Warbler	11	6	--	65	10	120	14	--	21	80	183	17	32	16	45
Bl.-th. Green Warbler	--	--	--	2	1	10	1	1	2	8	7	--	4	--	27
Cerulean Warbler	20	4	1	15	4	15	--	--	--	8	5	--	--	--	--
Blackburnian Warbler	--	4	--	--	3	13	--	--	--	1	2	--	2	--	2
Yellow-thr. Warbler	5	4	5	14	2	13	--	3	--	17	2	1	1	3	5
Chestnut-sd. Warbler	--	3	--	2	2	16	1	--	--	10	6	--	1	--	55
Bay-br. Warbler	--	1	--	--	8	20	--	1	--	--	--	--	8	--	--
Blackpoll Warbler	--	4	3	1	19	62	--	10	--	27	3	--	8	--	1
Pine Warbler	--	24	7	--	--	5	2	1	11	14	7	--	2	--	3
Prairie Warbler	--	3	11	34	10	60	1	6	15	31	24	--	9	2	8
Palm Warbler	1	2	2	28	8	144	4	--	--	20	2	2	--	--	5
Ovenbird	1	8	5	9	3	17	--	--	2	8	14	6	15	6	75
Northern Waterthrush	--	1	--	3	3	20	--	--	--	1	1	--	2	--	--
La. Waterthrush	5	1	6	8	4	20	--	--	2	6	7	--	2	--	19
Kentucky Warbler	11	14	8	20	11	40	--	--	3	39	21	--	18	--	5
Common Yellowthroat	4	7	22	37	26	148	10	8	60	45	66	12	59	7	30
Yellow-br. Chat	3	5	19	15	8	81	--	2	17	51	13	8	15	3	2
Hooded Warbler	5	--	1	4	4	11	--	2	2	13	24	--	12	--	33
Wilson's Warbler	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--
Canada Warbler	--	1	--	--	--	2	--	--	1	3	1	--	--	--	1
American Redstart	4	4	2	3	4	10	--	--	--	21	9	--	10	2	2
House Sparrow	9	1	97	35	35	95	--	55	51	29	80	62	76	23	150
Bobolink	125	--	5	--	80	209	--	--	--	56	7	--	128	--	--
Eastern Meadowlark	48	5	85	151	35	340	81	102	190	61	374	62	122	45	174
Red-winged Blackbird	76	3	43	135	75	420	66	352	80	179	304	74	228	66	176
Orchard Oriole	20	11	29	61	18	142	17	3	20	22	19	5	15	2	20
Northern Oriole	19	7	--	7	1	19	1	--	5	5	--	1	5	2	6
Rusty Blackbird	--	--	2	--	--	--	14	--	5	--	--	--	1	--	6
Common Grackle	45	12	78	165	320	806	153	247	300	114	1522	196	252	144	402
Brown-hd. Cowbird	104	15	16	90	18	195	42	37	84	38	1153	20	41	27	55
Scarlet Tanager	4	10	10	23	4	37	1	1	2	24	11	1	24	1	30
Summer Tanager	23	6	13	31	8	65	6	6	17	36	8	--	8	3	3
Cardinal	80	8	98	128	43	413	115	63	114	74	329	46	93	67	137
Rose-br. Grosbeak	2	6	7	8	25	95	2	--	1	21	11	--	2	--	9
Blue Grosbeak	2	--	20	4	2	7	--	--	5	13	4	--	1	--	2
Indigo Bunting	114	9	85	83	37	354	20	25	29	72	68	4	141	2	9
Painted Bunting	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Dickcissel	7	--	7	--	4	5	12	--	--	1	--	--	--	--	--
Evening Grosbeak	6	--	--	66	35	14	62	--	40	1	87	50	--	25	235
Purple Finch	--	--	--	--	--	--	4	--	1	--	--	1	1	6	10
Pine Siskin	80	--	--	--	--	22	--	--	--	14	2	--	--	--	5
American Goldfinch	43	3	29	24	35	281	26	9	31	78	218	23	95	53	113
Red Crossbill	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--
Rufous-sided Towhee	7	5	37	41	24	133	51	29	53	27	130	9	47	29	121
Savannah Sparrow	10	--	1	22	3	10	--	--	--	8	20	1	15	--	27
Grasshopper Sparrow	--	--	2	--	3	4	--	1	--	5	8	--	--	--	1
Vesper Sparrow	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Dark-eyed Junco	2	--	--	1	--	--	1	--	8	--	--	1	--	--	38
Chipping Sparrow	2	6	16	15	3	53	18	5	29	37	28	4	1	11	53
Field Sparrow	1	1	65	41	21	154	20	7	46	29	82	15	50	16	51
Wht.-cr. Sparrow	1	--	--	22	14	12	1	--	7	3	3	5	--	--	4
Wht.-thr. Sparrow	51	2	20	83	4	65	33	--	112	41	370	35	2	53	113
Lincoln's Sparrow	--	--	--	2	2	2	--	--	--	--	--	--	--	--	--
Swamp Sparrow	--	--	1	10	--	12	--	--	9	1	11	--	2	--	3
Song Sparrow	1	--	--	--	--	2	10	2	26	26	159	18	89	32	165
Species, Total	112	97	94	134	141	174	90	76	98	156	128	85	133	85	144
Species, Grand Total	215														

TULLAHOMA: 15 May, 7 p.m. - 16 May 7 p.m. Cloudy with gusty winds and showers; 54-66°. Included Manchester, Woods Reservoir, and Goose Pond. Debra Acuff, Bonnie Bacon, Carroll Barr, Stanley Barr, Becky Bingham, Ron Bingham, Effie Boyd, Mark Brothers, Sue Ellen Burger, Majory Harper, Betty King, Glenn King, Sanford McGee, Anna Parker, Jim Robb, Monty Wanamaker, Wanda Winnett.

Golden-winged Warbler (5) and Rusty Blackbird (4) were deleted; no details—MDW.

COOKEVILLE: 24 April, 7 a.m. - 5 p.m., Fair, 65-75°. Beulah Clark, Dr. and Mrs. J. O. Cummins, Caprice Haile, R. T. and D. D. Hinds, Ernst Holzhausen (Dear Sir, I apologize for the fact that this is at least the third different spelling of your name that has appeared in *The Migrant*. I hope this one is correct.—MDW), Mr. and Mrs. Frazier Jaques, Bill Jones, Ray Jordan, Amy Johnson, Mildred Lassiter, Mr. and Mrs. T. B. Link, Dr. and Mrs. Sidney McGee, Mrs. T. Moore, M. R. Richmond (compiler, 519 N. Jefferson, Cookeville 38501), Roy Sullivan, F. R. Toline, Thelma Tinnon, C. and G. E. Warren, Marie White, Florence Williams.

CHATTANOOGA: 1 and 2 May, Hamilton and surrounding counties; rainy the 1st, clear the 2nd; 50-71°; wind NW, 5-10 mph.

Lloyd and Betty Anderson, Jim and Frances Barnwell, Gary Bayne, Branson Block, Kenton Dickerson, Ken and Lil Dubke, Jack Freeman, Ann Gibson, Daniel Jacobson (compiler, P. O. Box 6, Wildwood, Ga. 30757), Janet Philips, Lee Shafer, Frank Ward, Dick Wodzenski, Roger Woodruff, and the many T.O.S. members attending the Spring Meeting.

KNOXVILLE: 25 April, restricted to Knox County. Partly cloudy; winds up to 40 mph, average 16.7; 51-72°.

Jeff Basham, Robert and Lavada Harris, J. C. Howell, Tony Koella, Beth Lacy, Holly Overton, J. B. Owen (compiler, 2930 North Hills Blvd. Knoxville 37917), Polly Ryder, Mabel Sanders, Boyd Sharp, Alan Smith, Johneta and Louis Smith, Carl Swafford, Bill and Irene Williams, Morris Williams.

GREENEVILLE: 25 April, clear, 60-74° Thirteen observers. Richard Nevius, compiler, Rt. 6, Greeneville 37743. Goshawk was deleted; no details—MDW.

KINGSPORT: 8 May, Midnight-Midnight. Count included that portion of Sullivan County lying west of Bristol Airport and Hawkins County. Overcast, mild winds, average temperature 50°. 150 observer hours, 175-200 miles.

Fred Alsop, Tom Bowman (compiler, Bays Mountain Park, Rt. 4, Kingsport 37660), David Coats, Marcia Davis, Glen Eller, Tom Finucane, Hayden and Kitty Hannabass, Fred Hilton, Glynis Hooper, Bill Kappa, Dick Lura, Richard Lewis, Betsy Oglesby, Debra Patterson, Rick Phillips, Ann Switzer, Gary Wallace.

In addition to the adult Virginia Rail there was a nest with five eggs and two young. The Barn Owls listed were all young.

BRISTOL: 24 April; clear; 52-83°.

Judy Abbott, Judge and Mrs. J. L. Cantwell, Mary E. Green, Ester Hilton, J. W. Jackson, Mr. and Mrs. Enno van Gelder, Diane Wilson (compiler).

ELIZABETHTON: 24 April; Carter and adjoining counties. Clear, wind 0-5 mph; 47° (on Roan Mountain) to 83°.

John and Donna Adams, Fred Behrend (the last of many counts for him), Ed Davidson, Joy and Martha Dillenbeck, Tom Dosser, Helenhill Dove, Dave Edwards, Glen Eller (compiler, Rt. 3, Grandview Terrace, Elizabethton 37643), Harry Farthing, Sally Goodin, Lee and Lois Herndon, Danny Leach, Dick Lura, John and Carolyn Martin, Jake Slonaker, Elanore Smith, Glen Swofford, Gary Wallace, Jane Whitehead, Keith Young.

The Goshawk was seen by Herndons, Martins, and Smith in Johnson County where it had been seen earlier in the year several times. The Baird's Sandpipers were seen by Dillenbecks and Whitehead; studied 30-40 minutes as close as ten feet!

* * * * * *

ROUND TABLE NOTE

SECOND RECORD OF NORTHERN PHALAROPE IN NASHVILLE AREA—As we approached Green's Lake near Gallatin at 11:10 on 18 May 1976, we noticed a small bird swimming rapidly and erratically among drowned weeds in the shallow water at the upper end of the lake. Using 7 x 35 Bushnell binoculars, we identified the bird as a phalarope. With a 20-45x Bushnell Spacemaster spotting scope, we were able to recognize it as a female Northern Phalarope (*Lobipes lobatus*) in breeding plumage.

After identifying the bird, we approached to approximately 35 meters and studied the bird more closely. The beak was black, very slender and needle-pointed. The crown and back of the neck were black with the black extending down the sides of the face to just below the eyes. The chin and upper throat were pure white. A brick red band crossed the middle throat, brightest red in front and shading into the dark nape. The back was dark gray with golden, brown stripes. A blue-gray area in front of the bend of the wing shaded into pure white on the breast and belly.

Birders in Nashville were alerted and several were able to see the bird during the afternoon. The lake was checked daily for the next few days but we did not see the phalarope again.

According to Parmer, *Birds of the Nashville Area,* the only previous record of Northern Phalarope in the Nashville Area is that of Ogden who found two at Bush Lake on 21 October 1959.

Paul and Dot Crawford, Route 4, Gallatin 37066.

MINUTES OF THE 1976 SYMPOSIUM AND FALL MEETING

The Tenth Annual Symposium and Fall Meeting of the Tennessee Ornithological Society was held 15-17 October 1976 at Fall Creek Falls State Park. The Board of Directors' meeting was called to order at 13:50 on 16 October 1976, by the President, Ray Jordan.

The Minutes of the 1975 Fall meeting of the Board of Directors, as printed in the March 1976 issue of *The Migrant,* were approved.

REPORTS OF OFFICERS

There were no reports from the Vice Presidents, Directors at Large, and the Secretary. The Treasurer presented no detailed financial report. He requested that chapters begin collecting 1977 dues prior to 1 January.

EDITOR'S REPORT: Gary Wallace stated that the June and September issues of *The Migrant* and the new Membership List were all at the printer and should be mailed in the next three to five weeks.

The "State Count Compiler," Morris Williams, had no further report except to repeat the request for reports to be sent in promptly. He stated that he had in some years received reports of Spring Counts before some of the previous Christmas Count reports. Morris Williams' new address is now in Nashville with the Department of Conservation.

CURATOR'S REPORT: The Curator, Dr. James Tanner, still has back copies of *The Migrant* for sale. He stated that in Mr. Ganier's effects, there was left a set of bound volumes for 1935 through 1955 which is available for any library, organization or individual. Also in Mr. Ganier's material was the original charter of the T.O.S. which legally set up the organization. This charter is presently in Dr. Tanner's safety deposit box and if anyone has a suggestion for a better place for its disposition, he would be glad to be advised. A thermofax copy of the charter has been made.

REPORTS OF STANDING COMMITTEES

CONSERVATION COMMITTEE: Dr. George Mayfield stated that nothing has happened to change the situation at the Duck River Heronry.

Bill Yambert discussed the Catoosa Wildlife Management Area with regard to the Red-cockaded Woodpecker. A forester has been working to locate signs of the bird, and has reported that they are scattered over a much wider area than previously thought. The spread of the pine beetle has not been stopped. However, no great decline in the number of woodpeckers has been noted. Not all of the trees have been killed by the pine beetle, and the pine beetle, the yellow pine and the woodpecker have been co-existing for several hundreds of thousands of years in the Southeastern U. S. and neither has eradicated the other so far.

Nothing is known on the problem of the AEDC Rookery and the airport question. The airport situation still has not been settled. George Mayfield will look into this and also local people of the Highland Rim Chapter will continue to monitor the situation.

On 22 September a meeting and symposium sponsored by the Audubon Society was held to discuss the blackbird problem. Bill Yambert attended and reported many interesting facts that were brought out. Although no solution to the problem has yet been found, and all efforts have been unsuccessful, coordination between all affected states is important. It was learned that the blackbirds are a tremendous agricultural help in states farther north for the killing of insects and a killing of over 50 million birds in this area would be highly undesirable from that standpoint. Also, reports show that eradication is a poor method of getting at the problem since, if 50 or 75 million birds were killed per year, there would be an increased reproductive figure due to lack of competition which would produce just as many or more birds the next year.

Dr. Burt Monroe has done an extensive study on the histoplasmosis aspect of the problem and this scare has been discounted. His studies show that active roosts are very unlikely to cause any epidemic. The birds, themselves, do not carry the disease but the roosts, when dry, do provide the conditions for growth of the spores in the soil, so that the dry material of an old roost when inhaled could carry the spores.

There was no report from the Certification (New Species) Committee. This Committee is composed of Gary Wallace, Chairman, Dr. Jim Tanner, Katherine Goodpasture and Ben Coffey. It was appointed during the presidency of Noreen Smith.

REPORTS—SPECIAL COMMITTEES

Patches and Decals: Pat Stallings stated that as of 1 October $550.00 worth had been sold. That, plus sales expected from this meeting, should put us $150.00 short of breaking even.

Non-Game Program: Ken Dubke stated that there had been no recent meetings of the State Non-Game Division and there was, therefore, no report at this time.

Dixon Merritt Memorial: The Chairman of the Committee, William Senter, was not present to make this report but John Sellars of the Lebanon Chapter and our President, Ray Jordan, both gave reports as to the progress being made. A letter has been sent to each Chapter President requesting that chapter donations be made to this cause and also encouragement be given to members for individual donations. It was pointed out that if each chapter would donate $10.00, we would have the $120.00 which the Society voted to underwrite. The Department of Conservation is to go in with T.O.S. on a matching basis. The price of the plaques has gone up since plans for the memorial were made, and will very likely go up again, making it important that we collect this money and complete the purchase as soon as possible.

Brochure: Plans for a T.O.S. Informational Brochure have been underway for several years with no progress. Wallace Coffey changed that at this meeting when he brought 4,000 copies of the brochure for distribution to the chapters and stated that, in addition, a copy of the brochure will be included in each copy of the next issue of *The Migrant.* Appreciation was expressed to Wallace Coffey for an outstanding job.

NEW BUSINESS

Mr. Jordan stated that he had received inquiries as to whether or not we should continue a relationship with the Tennessee Environmental Council. There were no recommendations on this at present but it was decided that the matter can be studied and dealt with at a later date.

JOINT MEETING: A letter has been received from the President of the Georgia Ornithological Society suggesting a joint meeting of GOS, CBC and TOS in the Spring of 1978. Fontana was mentioned as a possible location for such a meeting. After considerable discussion, motion was made by George Mayfield that the plan for a joint meeting of GOS, CBC and TOS be tentatively approved and that the officers be given authority to go ahead and investigate the details. The motion was seconded by Louise Nunnally. Motion carried.

SPRING FORAY: John Sellars, on behalf of the Lebanon Chapter, issued an invitation for the next Foray to be held in Wilson County. One of their primary reasons for the invitation is the hope that T.O.S. can compile a checklist of birds for the Cedar Glades area, to be distributed at the Nature Center where the Dixon Merritt plaques are to be placed. Morris Williams suggested that forays should be conducted in lesser known areas, and perhaps we could be housed in Wilson but go into Smith or DeKalb counties. Arlo Smith suggested that a committee be appointed to investigate which counties need to be especially studied. The President asked Morris Williams, Ken Dubke and Wallace Coffey to discuss this matter and report later.

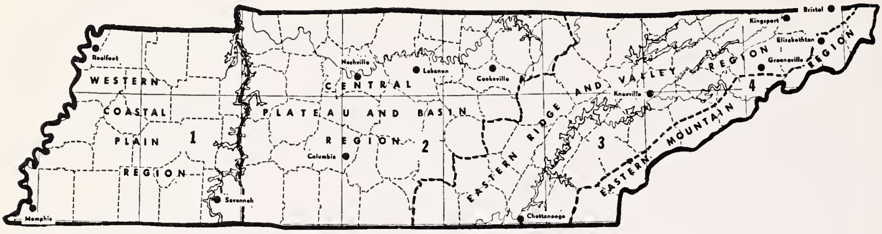
ANNOUNCEMENTS

SPRING MEETING, 1977: The dates for the Spring meeting are 6, 7 and 8 May at Reelfoot Lake, Ellington Hall to be the headquarters. Rooms at Airpark Inn and the Spillway Motel will be held until 26 March for T.O.S. members.

LOUISE JACKSON, *Secretary*

THE SEASON

Fred J. Alsop, III, *Editor*


Reelfoot
WESTERN COASTAL PLAIN REGION 1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION 2
Columbia
EASTERN RIDGE AND VALLEY REGION 3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION 4

NESTING SEASON: 16 MAY - 31 JULY

This particular "Season" report is packed with numerous records of the nesting of many species across the State; not only of their presence during their breeding season, but of the details of their attempts. The following observations include those of such uncommonly recorded nesters as the American Bittern and the Tree Swallow in the Central Plateau and Basin Region, and of night herons of both species (two big colonies of the Black-crowned Night Heron), a Pied-billed Grebe, and the unsuccessful attempt of a pair of Ospreys in the Eastern Ridge and Valley Region.

All Regions report late migrating and lingering passerines with both wintering finches and transient warblers being found on very late dates for some areas and, in some cases, for the State. The two middle Regions had late records for several waterfowl species with some remaining through the summer.

Some of the most noteworthy finds sending Tennessee birders for their field-guides and birding friends were such unusual discoveries as: a Glossy Ibis, a Scissor-tailed Flycatcher, and Bachman's Sparrows in the Western Coastal Plain; a Fulvous Tree Duck (the new A.O.U. common name is Fulvous Whistling-Duck), a Ruddy Turnstone, and a Northern Phalarope in the Central Plateau and Basin; a Bald Eagle in July in the Eastern Ridge and Valley and a June Pied-billed Grebe in the Eastern Mountain Region.

Again, for at least the fourth consecutive summer, Upland Sandpipers were located at Metro Airport in Nashville, but still without any evidence of their nesting.

More birders seem to be remaining active through the nesting season with the results of their efforts adding much to our knowledge of Tennessee's nesting birds.

WESTERN COASTAL PLAIN REGION—The Cedar Waxwing dates are the latest for this region ever recorded in the Journal; however, this is not to say that they have not been in the area at a previous time and not reported. This is the fourth recorded sighting in West Tennessee for the Scissor-tailed Flycatcher and the third time for the Glossy Ibis. The Mississippi Kite count is up from the previous years. The Bachman's Sparrow has been sighted in West Tennessee three previous times, with a prior sighting in Hickory Valley, Mississippi in 1961. This is the first summer record for the Song Sparrow recorded in *The Migrant* with young.

Heron-Sandpiper: Yellow-crowned Night Heron: 20 Jul (3) FDRM (MDW). Least Bittern: 13 Jun (2) East of Gray's Camp (1) South of Gray's Camp, R (ANS); 20 Jul (2 adults; 4 nests, 2 empty, 1 with 5 and 1 with 4 eggs) FDRM (MDW). *GLOSSY IBIS:* 30 Jun (1) HRB, West Haywood Co. (GB). Blue-winged Teal: 20 Jul (1) FDRM (MDW). Mississippi Kite: 29 May (8), Jun - Jul (2-4) R (MEC); 27 Jun (1) North of Toone (AL, RJ). American Coot: 20 Jul (1) FDRM (MDW). Spotted Sandpiper: 3 Jul (1) Island 13, Lake Co. (MLB). White-rumped Sandpiper: 29 May (1) Echles Towhead, Lake Co. (MLB). Solitary Sandpiper: 24 Jul (1) PF (MW). Least Sandpiper: 3 Jul (1) Island 13, Lake Co. (MLB). Semipalmated Sandpiper: 29 May (10) Echles Towhead, Lake Co. (MLB).

Flycatcher-Sparrow: SCISSOR-TAILED FLYCATCHER: 20 May (1) M (JW). Yellow-bellied Flycatcher: 20 thru 23 May (1) M (LC). Cedar Waxwing: 23 May (30, 20, 5) at 3 respective locations M (BBC); 29 May (20) I-40 and Big Sandy (15) I-40 near Big Sandy (6) I-40 and Jackson, TN (MLB). Bewick's Wren: 18 May (1) West of Covington (AS), 2 Jun (1) Southwest of Covington (AS); 27 Jun (1) North of Toone (AL, RJ); 6 Jun (1) Haywood/Madison Co. line (AS). Swainson's Warbler: 15 Jul (1) Big Cypress Tree, Weakley C. (MDW). Worm-eating Warbler: 30 Jun (2) HNWR at Hwy 76 (GB). Northern Oriole: 13 Jul (1) Pickwick Dam (MDW). *PAINTED BUNTING:* 20 Jun (1) Covington, TN (AS); (11) males found at various sites in the Northwest Quadrant of M (BBC). *BACHMAN'S SPARROW:* 16 Jun (1) each stop of 3 on Breeding Bird Census, NW Alcorn Co. MS (BBC, LC), 18 Jun (1) N of Hickory Flat, MS (BBC, LC). Song Sparrow: 20 Jun (2) adults and (juv) Joe Echels Towhead, Lake Co. (MLB). 29 Jun (1) heard singing, same location (BBC).

Locations: FDRM—Forked Deer River Marsh; HRB—Hatchie River Bottom; HNWR—Hatchie National Wildlife Refuge; M—Memphis; PF—Penal Farm; R—Raleigh.

Observers: ANS—Arlo and Noreen Smith; MLB—Mike Bierly; BBC—Ben B. Coffey; LC—Lula Coffey; GB—Gary Bayne (Rising Fawn, GA); AS—Alice Smith; RJ—Rusty Jones; AL—Allan Larabee; MDW—Morris D. Williams; MW—Martha Waldron; JW—Jeff Wilson.

Martha Waldron, 1626 Yorkshire Dr., Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION—*Loon-Duck:* Common Loon: 7 Jun (1) OHL (MLM). Double-crested Cormorant: 25 May (1) GSP (DC, PC). Cattle Egret: 18-24 May (1) G (DC, PC); 23 May (1) MP (OH); 31 Jul (1) BV (MLB, RJM). Black-crowned Night Heron: 19 Jun (1, imm.) ML (DKD, DRJ); Bordeaux Heronry was active this year. Yellow-crowned Night Heron: 16 Jul (1, imm.), 21 Jul (2, ad.) CC (FB); during summer (2 ad., 1 imm.) BV. Least Bittern: 22 May (1) GP (DKD, GK, DRJ); 19 Jun (2) GP (DKD, DRJ); 19 Jun (2) ML (DKD, DRJ). *AMERICAN BITTERN:* 22 May (1 ad., *nest* with infertile egg, a 2 week old bird near nest) GP (DKD, GK, DRJ); 23 May (1) BV (RJM); 30 May (1) FP (MDW). *FULVOUS TREE DUCK:* bird reported last season was last seen on 21 May, G (DC, PC). Black Duck: 6 and 20 Jun (1) MP (OH). Blue-winged Teal: 5 Jun (1) ACM (RJM); 6 and 20 Jun (1) MP (OH). Ring-necked Duck: 19 May (1) G (DC, PC). Canvasback: A female remained with an injured male at Gallatin through 19 May; 23-25 Jul (1, apparently healthy male) G (DC, PC). Ruddy Duck: 27 May (1) MP (Allen Presnell). Hooded Merganser: 3 Jun (1) OHL (MLM).

Hawk-Owl: Sharp-shinned Hawk: 29 May (1) Macon Co. (MDW). Virginia Rail: 16 May (1) ACM (WF, DRJ, MLM). American Coot: 3 Jun (2) OHL (MLM); 5 Jun (4) Ashland City (RJM); 27 Jun (1) BV (MLM). *RUDDY TURNSTONE:* 30 Jul (1) G (DC, PC, BJ). Upland Sandpiper: 14-21 Jul (1 or 2) Metro Airport (MLM); 17 Jul (1) Sycamore Creek Recreation Area (RJM). Spotted Sandpiper: 27 May (1) MP (*fide* GRM); 2 Jun (1) Old Hickory Beach (MLM). Lesser Yellowlegs: 25 May (1) G (DC, PC). White-rumped Sandpiper: 19-24 May (8 or 9) G (DC, PC, DRJ, BJ). Baird's Sandpiper: 15 May (2) G (DRJ). Dowitcher sp.: 9-11 Jul (up to 4) BV (RJM, MPS); 30 Jul (1) G (DC, PC, BJ). Stilt Sandpiper: 17-30 Jul (1-3) G (DC, PC). Western Sandpiper: 24 May (1), 30 Jul (3) G (DC, PC). *NORTHERN PHALAROPE:* 18 May (1) G (DC, PC). Forster's Tern: 17 Jul (3) OHL (SF, WF). Black-billed Cuckoo: 16 May (1) ACM (DRJ, MLM, MPS); 19 May (1) L (GRM). Barn Owl: 29 May (1, banded) G (MDW).

Flycatcher-Sparrow: Willow Flycatcher: 29 May (1) Minor Hill, Giles Co. (MDW); 6 Jun (2) MP (OH); during summer (2) BV (MLB). *TREE SWALLOW:* 6 Jun (ad. *feeding young* out of nest) MP (OH). Bank Swallow: 27 May (2) C (GRM). House Wren: One appeared in Byrdstown on 19 Jun and spent summer, 1st local summer record (RH). Swainson's Thrush: 31 May (1) CC (FB). Philadelphia Vireo: 23 May (2) RL (MLB). Black-throated Blue Warbler: 30 May (1, singing) 5 mi. E of Center Hill Dam (BJ). Yellow-rumped Warbler: 24 May (1) NA (SF) latest NA record by 5 days. Bay-breasted Warbler: 26 May (1) NA (MLB). Connecticut Warbler: 22 May (1) Shelby Bottoms (MPS). Mourning Warbler: 19 May (1) L (GRM); 19 May (1) RL (Frank and Karen Ritter); 28 May (1) NA (Ann Nichols). Rose-breasted Grosbeak: 31 May (2) CC (FB). Pine Siskin: 22 May (20) Cheatham Lake (RJM), latest NA record by 6 days. Grasshopper Sparrow: 5 Jun (10) Glen Breed. Bird Survey (DRJ). White-crowned Sparrow: 23 May (1) C (GRM). White-throated Sparrow: 11 Jul (1) NA (Jan Alexander). Song Sparrow: Many pairs in Byrdstown, following only 1 pair in 1968 (RH); one in McMinnville in early summer, none in Woodbury (Mary Wood).

Locations: ACM—Ashland City Marsh; BV—Buena Vista; CC—Cannon County; C—Columbia; FP—Five Points; G—Gallatin; GSP—Gallatin Steam Plant; GP—Goose Pond; L—Lincoln County; MP—Monsanto Ponds; ML—Morton's Lake, Manchester; NA—Nashville Area; OHL—Old Hickory Lake; RL—Radnor Lake.

Observers: MLB—Michael Bierly; FB—Frances Bryson; DC—Dot Crawford; PC—Paul Crawford; DKD—Kenton Dickerson; SF—Sally Fintel; WF—William Fintel; RH—Robbie Hassler; OH—Olin Hotchkiss; DRJ—Daniel Jacobson; BJ—Bill Jones; GK—Glen King; MLM—Margaret Mann; GRM—George Mayfield; RJM—Rocky Milburn; MPS—Pat Stallings; MDW—Morris Williams.

MORRIS D. WILLIAMS, Tennessee Heritage Program, Suite 601, 1720 West End Building, Nashville 37203.

EASTERN RIDGE AND VALLEY REGION—Several nests found during the season are worthy of mention. A pair of Osprey, returning to a nest on Watts Bar Lake, laid eggs, but was unsuccessful in hatching them. An active Pied-billed Grebe nest—a first for the Chattanooga area, was found at Amnicola Marsh. Knoxville reported a new nesting location for the Barn Owl and two large colonies of Black-crowned Night Herons. A species seldom seen during the nesting season, the Blue-winged Warbler, was observed feeding young on Lookout Mountain.

Probably the most unusual record is that of an Evening Grosbeak at Knoxville in July. Other interesting sightings include June dates for the Chestnut-sided Warbler at Chattanooga, a summering Greater Scaup on Ft. Loudon Lake, and four July dates for the Bald Eagle.

While the Grasshopper Sparrow seems to be declining in general, this season gives good news from two areas of the region. Are they actually on the increase?

Grebe-Sandpiper: Pied-billed Grebe: 19 May (nest, 3 eggs), 26 May (nest, 2 eggs), 11 July (adult with two young) AM (KLD, GLB, DRJ). Great Blue Heron: 23 Jun (1) AS (DL); 26 Jul (1) JCo (TK). Cattle Egret: 29 May (2) CkL (JBO, DB); 17 Jul (7) BC (JD). Great Egret: 19 Jul (2) AS (DL); 27 Jul (2) HRA (KLD). *BLACK-CROWNED NIGHT HERON:* 26 Jun (114 nests) S (MDW, LN); 28 Jun (2) JCo (TK); 1 Jul (306 nests) CkL (MDW); 25 Jul (2 ad., 4 imm.) AS (DL, MD, SG). Yellow-crowned Night Heron: 16 May (8 nests) AlM (MDW); 11 Jul (nest, 3 young) AM (DRJ); 16 Jul (4 imm.) AS (DL, MD, SG). *GADWALL:* 1 Jul (1) PHL (MD, SG). Blue-winged Teal: 12 Jul (1) HRA (KLD). *GREATER SCAUP:* 16 May - 8 Jul (1) FLL (PP). Sharp-shinned Hawk: 20 Jul (1) WCo (SG). Cooper's Hawk: 16 May (1), 25, 27 Jun (1) JC (SG). Red-tailed Hawk: 6 Jun (nest, 2 young) ALM (GLB). Broad-winged Hawk: 9 Jun (nest, 3 young) ALM (GLB). *BALD EAGLE:* 8 Jul (1 calling at night) NoL (JCH); 13, 16, 23 Jul (1) NoL (JCH). *OSPREY:* 2 Jun (nest, 2 eggs, unsuccessful) WBL (Kathy Hamm fide KD); 1 Jul (1) PHL (MD, SG). American Kestrel: 12 Jun (2) SeV (LS, DRJ); 11 Jul (2) CH (KLD). Ring-necked Pheasant: 31 May (2) HRA (GLB). King Rail: 21 May - 11 Jun (1, hit by car on last date) SB (KLD); 27 May (nest, 12 hatching eggs) AlM (MDW); 28 May (1) HRA, (DRJ); 20 Jul (1) AM (GLB). American Coot: through period (1-13) HRA, CH (KLD, DRJ, DKD); 18 Jun (2) MHL (GM); 19 Jul (1) AS (DL). American Woodcock: 15 Jun (3) AM (KLD, DRJ); 21 Jun (1) Erwin (RL). Spotted Sandpiper: 31 May (1) AS (RL, DL). Pectoral Sandpiper: 17 May (2) HRA (KLD). White-rumped Sandpiper: 17 May (7) HRA (KD). Least Sandpiper: 26 May (1) AM (DRJ); 1 Jul (2) AS (MD, HD, SG). Semipalmated Sandpiper: 26 May (2) AM (DRJ).

Tern-Sparrow: Common Tern: 13 Jun (1) ALM (GLB, DRJ). Caspian Tern: 27 May (1) Catoosa Co., Ga. (KD). Black Tern: 4 Jun (1) ChL (JD). Barn Owl: two active sites, one producing 3 young JC (GE); 5 Jun (nest, 2 young) SeV (LS, DRJ); 10 Jul (1-2 adults, 2-3 young) Powell (GM). Willow Flycatcher: 31 May, 20, 27 Jul (1) AM (GLB); 4 Jun (1) McClure Pond, KCo (MDW); (2-3 pairs nested) AS (GE). Tree Swallow: 23 May (50) AS (MD, SG). Bank Swallow: 30 May (3) AS (GE, HF); 11 Jul (1) HRA

(DRJ). House Wren: 6 Jun (1) JBBS (DRJ). Bewick's Wren: 6 Jun (1) JBBS (DRJ); 12 Jun (1) SeV (LS, DRJ). Short-billed Marsh Wren: 18 Jul-end of period (1) SB (KLD). Blue-winged Warbler: 5 Jun (adult feeding young) ALM (GLB); 6 Jun (1) Scott Co. (Jim Campbell). *CHESTNUT-SIDED WARBLER:* 6 Jun (1) ALM (GLB); 11, 12 Jun (1, male singing) Point Park, CH (GLB, KLD). Connecticut Warbler: 13 Jun (1) ALM (GLB, DRJ). Wilson's Warbler: 21 May (1) KCo (BS). Bobolink: 18 May (150) BCo (HO). Northern Oriole: 30 May (1) JCo (TK); 10-12 Jul (1) KCo (HO). Dickcissel: 17 May (4), 13 Jul (2) HRA (KLD); 27 May-end of period (2-4) JCo (TK). *EVENING GROSBEAK:* 24 May (3) JC (SG); 29 Jul (1) K (Rob Harris). *RED CROSSBILL:* 6 Jun (6) KCo (MDW). Grasshopper Sparrow: through period (very common) JCo (TK); during period (12) HRA, SeV, ALM (KLD, LS, GLB, DRJ); 5 Jun (1) LBBS (MDW).

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; BC—Battle Creek, Marion County; BCo—Blount County; CH—Chattanooga; CkL—Cherokee Lake; ChL—Chickamauga Lake; FLL—Ft. Loudon Lake; HRA—Hiwassee River Area; JBBS—Jasper Breeding Bird Survey; JCo—Jefferson County; JC—Johnson City; K—Knoxville; KCo—Knox County; LM—Lookout Mountain, Ga.; LBBS—Lovell Breeding Bird Survey; MHL—Melton Hill Lake; NoL—Norris Lake; PHL—Patrick Henry Lake; S—Sevierville; SB—Savannah Bay; SeV—Sequatchie Valley; WBL—Watts Bar Lake; WCo—Washington County.

Observers: GLB—Gary L. Bayne; DB—Dave Bishop; JD—Jon DeVore; DKD—D. Kenton Dickerson; MD—Martha Dillenbeck; HD—Helenhill Dove; KD—Ken Dubke; KLD—Ken and Lil Dubke; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; JCH—J. C. Howell; DRJ—Daniel R. Jacobson; TK—Tony Koella; RL—Richard Lewis; DL—Dick Lura; GM—Gary Muffly; LN—Louise Nunnally; JBO—J. B. Owen; HO—Holly Overton; PP—Paul Pardue; LS—Lee Shafer; BS—Boyd Sharp; MDW—Morris D. Williams.

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EASTERN MOUNTAIN REGION—The weather for our area was nearly normal in all aspects. The only exception was the month of June with almost double the normal amount of rainfall. Temperatures were near normal thru-out the reporting period. One later than usual "light" frost came on 19 May with very little effect.

There seemed to be very few observers in the field in our area this reporting period, therefore no really significant sightings were reported.

Grebe-Sandpiper: Pied-billed Grebe: 22 Jun (1) BlC (GE). Great-blue Heron: 5 Jul (1) BlC (GE). Bufflehead: last seen 17 May (2) WibL (HF). Sharp-shinned Hawk: 21 May (1) IMG (SG); 31 May (1) RM (LRH, GE). Cooper's Hawk: 31 May (1) RM (LRH, GE); 6 Jul (1) Eliz (GE). Ruffed Grouse: 29 May (1 adult, 6 young) ShV (GE, DL). Semipalmated Plover: 30 May (1) WatR (GE). Least Sandpiper: 23 May (3) WatR (JS); 12 Jul (1) WatR (MD, SG). Semipalmated Sandpiper: 17 May (2) SeV (ES, LRH); 31 May (3) WatR (GE, HF). Western Sandpiper: 18-19 May (1) WatR (MD, SG).

Cuckoo-Shrike: Black-billed Cuckoo: No reports during this period is very unusual. Barn Owl: two active sites in area with one producing 3 young near Eliz. *SAW-WHET OWL:* 22 May (2) GSMNP (MDW). Chuck-will's-widow: last heard 22 Jun (1) MC (GW). Willow Flycatcher: 29-30 May (2-5) ShV (DJ). *OLIVE-SIDED FLYCATCHER:* 16 May (3) GSMNP (MDW). Purple Martin: last seen 19 Jul (3) Eliz (LRH). Common Raven: 26 Jun (2) GSMNP (MDW); 1-3 irregularly on RM and IM (ES, SG, et. al.). Red-breasted Nuthatch: completely absent from higher elevation on RM since last winter's bad cone crop. Winter Wren: regular on RM thru-out period (ES et. al.). Loggerhead Shrike: No reports since 27 Apr which is very unusual.

Warbler-Sparrow: Prothonotary Warbler: 30 May (2) WatR (GE). Swainson's Warbler: 30 May (2) ShV (DJ); 23 Jun (1) RCP (SG, RL, GS). Golden-winged Warbler: 31 May (2) RM (GE, LRH). Blackpoll Warbler: last seen 30 May (1) Eliz (GE) after a very heavy spring migration. Prairie Warbler: last seen 22 May (1) BlC (GE). *MOURNING WARBLER:* 23 May (1) Eliz (LRH). *BOBOLINK:* 8 Jun (1) GSMNP (MDW). Blue Grosbeak: 17 Jul (1) RCP (GS); 25 Jul (1) MtnC (GE); 27 Jul (2) near Eliz (MD, SG). Evening Grosbeak: last seen 19 May (2) Eliz (GE). Pine Siskin: 31 May (1) RM (DJ); 2 May (3) RM (ES). *RED CROSSBILL:* 21 May (8) Unaka Mtn (ES, LRH); 27 July (6) near Eliz (GE, RL). Grasshopper Sparrow: 8 Jun (9 singing males) near Eliz (GW, DL). Vesper Sparrow: 29 May (6) ShV (DJ); 18 Jun (2) RM (ES).

Locations: BlC—Bluff City; Eliz—Elizabethton; GSMNP—Great Smoky Mtn. National Park; IMG—Iron Mtn. Gap; MC—Milligan College; MtnC—Mountain City; RCP—Rock Creek Park (near Erwin), RM—Roan Mountain; ShV—Shady Valley; SmV—Siam Valley; WatR—Watauga River; WibL—Wilbur Lake.

Observers: MD—Martha Dillenbeck; GE—Glen Eller; HF—Harry Farthing; SG—Sally Goodin; LRH—Lee R. Herndon; DJ—Daniel Jacobson; DL—Dick Lura; RL—Richard Lewis; ES—Ed Schell; GS—Glen Swofford; JS—Jake Slonaker; GW—Gary Wallace; MDW—Morris Williams.

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Doyle, Dr. and Mrs. Patrick J., 2031 Ransome Dr., Murfreesboro, TN 37130 --------- 1973
Draughon, Miss Dorothy, 520 Fairfax Ave., Nashville, TN 37212 --------------------- 1968
Drinkard, Mrs. Bertha, 728 Prospect Ave., Bristol, VA 24201 ----------------------- 1976
Duchein, Miss Annette, P. O. Box 13, Lake Lure, NC 28746 ------------------------- 1961
Dugger, Mrs. Milbrey, 2835 Kenway Rd., Nashville, TN 37215 ------------------------ 1958
Duncan, Mrs. Minnie, 512 Michigan Ave., Oak Ridge, TN 37830 ---------------------- 1966

Earhardt, Mrs. Florence, 950 Deerfield Dr., Cookeville, TN 38501 ----------------- 1971
Earle, Mr. and Mrs. Hugh P., 210 Waddell, Madisonville, KY 42431 ----------------- 1976
Earnest, Mr. and Mrs. Charles E., 101 Old Indian Hill Trail, Greeneville, TN 37743 1973
Eastes, Mrs. Alyne, P. O. Box 393, Lebanon, TN 37087 ---------------------------- 1968
Eastin, Mr. and Mrs. Todd V. Eastin, Route 1, Shady Valley, TN 37688 ------------- 1976
Edwards, Mr. and Mrs. May J., 5425 Lynnette Dr., Knoxville, TN 37918 ------------- 1968
Edwards, Mrs. Preston, 1910 Hamilton Dr., Murfreesboro, TN 37130 ----------------- 1975
Eggleston, Mrs. William J., 1437 Central Ave., Apt. 103, Memphis, TN 38104 ------- 1975
Egley, Mr. and Mrs. Bill, Route 3, Lawrenceburg, TN 38464 ------------------------ 1972
Eiklor, Mr. and Mrs. John, Route 10, Box 163, Jonesboro, TN 37659 ---------------- 1976
Elam, Mr. and Mrs. Nelson, Route 4, Franklin, TN 37064 --------------------------- 1967
Eller, Mr. Glen, Route 3, Elizabethton, TN 37643 -------------------------------- 1970
Ellingboe, Mr. and Mrs. Roy, 1216 Poplar Dr., Lawrenceburg, TN 38464 ------------- 1972
Elliott, Mr. and Mrs. Roy C., Jr., 567 Ringling Rd., Crystal Lake, IL 60014 ------ 1967
Ellis, Mrs. Paul, Jr., 2724 Wortham Dr., Nashville, TN 37215 --------------------- 1970
Ellis, Mr. and Mrs. John O., 4004 Overbrook Dr., Nashville, TN 37204 ------------- 1960
Elmore, Mr. Jackie B., 5106 Outer Loop, Louisville, KY 40219 --------------------- 1976
Embury, Mr. and Mrs. John H., 212 North McLean Blvd., Memphis, TN 38112 ---------- 1962
Enloe, Miss Mary E., RFD #1, Box 193, Franklin, NC 28734 ------------------------- 1953
Epperson, Mrs. H. C., 519 Maryland Ave., Bristol, TN 37622 ----------------------- 1952
Erwin, Mr. and Mrs. Billy H., Jr., Route 7, Murfreesboro, TN 37130 --------------- 1973
Evans, Mrs. John W., Rt. 1, Harbor Hill, Hermitage Harbor, Old Hickory, TN 37138 - 1976

Farrell, Dr. and Mrs. Charles E., 109 S. Bellevue Dr., Nashville, TN 37205 ------- 1954
Farris, Mrs. Carter M., Rome Pike, Route 2, Lebanon, TN 37087 -------------------- 1964
Farris, Miss Rachael, 4911 Sewanee Rd., Nashville, TN 37220 ---------------------- 1964
Farthing, Mr. Harrison H., 100 Sherwood Heights, Elizabethton, TN 37643 ---------- 1974
Feldman, Mr. Jesse, 461 S. Highland St., Apt. 19, Memphis, TN 38111 -------------- 1976
Felts, Dr. and Mrs. Stephen K., Route 1, Bakers Grove Rd., Hermitage, TN 37076 --- 1976
Fenn, Mrs. W. L., 959 Gateway Ave., Apt. 1331, Chattanooga, TN 37402 ------------- 1958
Fentress, Mrs. William E., Route #2, Brentwood, TN 37027 ------------------------- 1952
Ferguson, Mr. and Mrs. James A., 3090 Joslyn St., Memphis, TN 38128 -------------- 1975
Finch, Dr. and Mrs. W. C., 6024 Sherwood Dr., Nashville, TN 37215 ---------------- 1967
Finney, Mr. and Mrs. James I., Jr., Hidden Lake Est., Rt. 7, Columbia, TN 38401 -- 1974
Fintel, Mr. and Mrs. William A., 25 Jones Circle, Old Hickory, TN 37138 ---------- 1972
Finucane, Mr. Joe, 199 Chickamauga, Knoxville, TN 37917 -------------------------- 1965
Fischer, Mr. and Mrs. William, 1243 Robinhood Rd., Greeneville, TN 37743 --------- 1967
Fleischer, Mr. Raymond J., 708 Newberry Rd., Nashville, TN 37205 ----------------- 1976
Fleming, Mrs. Gertrude L., P. O. Box 613, Collegedale, TN 37315 ------------------ 1972
Flippen, Mrs. Roe T., R.R.1, Box 166, Lebanon, TN 37087 -------------------------- 1974
Floyd, Mr. Robert J., 11524 Nassau Dr., Concord, TN 37920 ------------------------ 1976
Forbes, Mrs. Walter T., Sunset Road, East, Lookout Mountain, TN 37350 ------------ 1954
Fort, Mr. and Mrs. Combs, 1040 Parkwood Terrace, Nashville, TN 37220 ------------- 1970
Fort, Dr. Garth E., 1900 Old Hickory Blvd., Brentwood, TN 37027 ------------------ 1960
Foshee, Mr. and Mrs. Gary, 938 Snapp Ferry Rd., Greeneville, TN 37743 ------------ 1976
Foster, Mr. and Mrs. J. P., 5817 Fredericksburg Dr., Nashville, TN 37215 --------- 1966
Foster, Katherine H., Route 28, Smallman Rd., Knoxville, TN 37920 ---------------- 1976
Frank, Miss Harriette, 3767 Highland Park Pl., Memphis, TN 38111 ----------------- 1974
Freeman, Mr. and Mrs. George, Route 2, Baker Rd., Murfreesboro, TN 37130 --------- 1975
Freeman, Dr. and Mrs. John R., 3116 North Lockwood Dr., Chattanooga, TN 37415 ---- 1974
French, Mr. and Mrs. J. B., 3108 Ocoee Trail, N.E., Knoxville, TN 37917 ---------- 1954
Frings, Dr.Hubert and Mable, 514 College Ave., Norman, OK 73069 ------------------ 1970
Froste, Christine L., 2700 Boright, Knoxville, TN 37917 -------------------------- 1976
Fuqua, Dr. and Mrs. W. G., Route #7, Columbia, TN 38401 -------------------------- 1962

Gant, Mrs. Norwood J., Sr., 884 Robertson Academy Rd., Nashville, TN 37220 ------- 1965
Gant, Mr. Norward J., Jr., 955 Draughon Ave., Nashville, TN 37204 ---------------- 1965
Garcelon, Mr. and Mrs. Merrell, 1966
Garrett, Mrs. Robert, 1625 Highland Ave., Columbia, TN 38401 --------------------- 1974
Garrison, Miss Mildred L., 229 Taliwa Dr., Knoxville, TN 37920 ------------------- 1974
Gaston, Mrs. Emmet L., Jr., 109 Oak Hill Circle, Lebanon, TN 37087 -------------- 1957
Gaut, Mr. and Mrs. King, Route #8, Greeneville, TN 37743 ------------------------- 1962
Gelwick, Mr. and Mrs. Philip A., 1236 Madison, Apt. 21, Memphis, TN 38104 -------- 1974
Geren, Miss Genevieve, 220 N. McLean, #1, Memphis, TN 38112 ---------------------- 1950
Gevers, Mr. Carl M., 5511 Dayton Blvd., Chattanooga, TN 37415 -------------------- 1963
Gibson, Mr. and Mrs. Carl L., 280 N. Crest Rd., Chattanooga, TN 37404 ------------ 1973
Gibson, Mr. Dennis, Route 7, Howell Dr., Franklin, TN 37064 ---------------------- 1975
Gift, Mr. W. Edgar, P. O. Box 85, Cedar Mountain, NC 28718 ----------------------- 1952
Gilreath, Mrs. Sam B., 110 Greenlawn Dr., Lebanon, TN 37087 ---------------------- 1967
Ginn, Mrs. H. Earl, 5845 Merrimac Ct., Nashville, TN 37215 ----------------------- 1971
Gladish, Miss Martha E., P. O. Box 400, Lawrenceburg, TN 38464 ------------------- 1972
Gooch, Mr. and Mrs. Robert D., 2900 Garden Lane, Memphis, TN 38111 -------------- 1973
Goodin, Mrs. John, 1300 Virginia, Johnson City, TN 37601 ------------------------- 1973
Goodpasture, Dr. Katherine, 3407 Hopkins Lane, Nashville, TN 37215 --------------- 1941
Gose, Mrs. Raymond, 122 Edgewood Dr., Bristol, VA 24201 -------------------------- 1975
Grady, Mrs. Colette S., 304 East Brow Rd., Lookout Mountain, TN 37350 ------------ 1971
Gray, Mr. Willard N., 417 South 7th St., Boonville, IN 47601 --------------------- 1971
Greene, Miss Mary Elizabeth, 324 Park St., Bristol, VA 24201 --------------------- 1973
Greever, Dr. C. E., 1615 Lascassas Rd., Murfreesboro, TN 37130 ------------------- 1970

Griffith, Mr. and Mrs. E. R., 807 Linden Hall, Chattanooga, TN 37415 ---- 1972
Griffith, Mr. and Mrs. J. E., 4320 Skyline Dr., Knoxville, TN 37914 ---- 1971
Grigsby, Mr. Maurice E., 6425 Bob Varner Rd., Knoxville, TN 37918 ---- 1966
Grimes, Mr. Samuel A., Sr., 4627 Peachtree Circle E., Jacksonville, FL 32205 ---- 1962
Groce, Mr. and Mrs. A. Ben, 500 Lynnwood Blvd., Nashville, TN 37205 ---- 1961
Grubb, Mr. David, Route 22, Harrell Rd., Powell, TN 37921 ---- 1976
Grundset, Mr. E. O., Box 465, Collegedale, TN 37315 ---- 1960
Guinn, Mr. and Mrs. Joe B., 8182 Cherrytown Lane, Germantown, TN 38138 ---- 1975
Gumbrill, Mr. J. R., 43 Cromley Rd., High Lane, Stockport Cheshire, England ---- 1972

Hagan, Miss Virginia, 2418 Kirtland Place, Apt. B-6, Nashville, TN 37212 ---- 1961
Halcomb, C. Monty, Cumberland Museum, 800 Ridley Ave., Nashville, TN 37203 ---- 1973
Hale, Mr. Kenneth, Route 1, Bluff City, TN 37618 ---- 1972
Hale, Mr. and Mrs. Steven, Route 3, Limestone, TN 37681 ---- 1976
Hall, Dr. George A., Dept. of Chemistry, West Virginia Univ., Morgantown, W.VA 26506 1962
Hamilton, Mrs. Anne P., 704 Greenwood Dr., Dalton, GA 30720 ---- 1972
Hamm, Miss Cathy, Box 114, Oak Ridge, TN 37830 ---- 1976
Hammer, Dr. and Mrs. Donald A., 1270 Orchard Rd., Norris, TN 37828 ---- 1973
Hammond, Miss Rosalie H., 1705 Green Hills Dr., Nashville, TN 37215 ---- 1976
Hampton, Dr. and Mrs. John C., 200 Kealing Bluff Rd., Chattanooga, TN 37409 ---- 1975
Hancock, Mr. James W., Route 1, Box 49, Princeton Rd., Madisonville, KY 42431 ---- 1946
Hanebrink, Dr. Earl L., Box 67, Arkansas State Univ., State College AR 72467 ---- 1968
Haney, Mr. Chris, Route 3, Box 380A, Ooltewah, TN 37363 ---- 1973
Hannabas, Mr. and Mrs. H. Hayden, 1733 Orchard Court, Kingsport, TN 37660 ---- 1976
Hanson, Mr. Newton, Box 565, Bruce, MS 38915 ---- 1955
Hardin, Mr. and Mrs. Patrick, 3521 Talahi Dr., Knoxville, TN 37919 ---- 1976
Hardison, Miss Louise, 1801 Highland Ave., Columbia, TN 38401 ---- 1974
Hardman, Mrs. Joel S., 1129 Glendale Lane, Nashville, TN 37204 ---- 1966
Harmon, Mr. Clarence, S., Jr., 123 Mahr Ave., Lawrenceburg, TN 38464 ---- 1972
Harrell, Mary, 1710 E. Main St., Murfreesboro, TN 37130 ---- 1976
Harris, Jeffrey H. and Susanna B., 835 W. Vanderbilt Dr., Oak Ridge, TN 37830 ---- 1976
Harris, Dr. and Mrs. Robert W., III, 3811 Taliluna Ave., Knoxville, TN 37919 ---- 1972
Harris, Mr. Van, 3986 Grahamdale Circle, Memphis, TN 38122 ---- 1974
Hassler, Mr. and Mrs. John D., Box 1, Byrdstown, TN 38549 ---- 1967
Haynes, Mr. and Mrs. W. D., 1014 N. Maple St., Murfreesboro, TN 37130 ---- 1970
Heiser, Dr. Don R., 3912 Woodhill Pl., Knoxville, TN 37919 ---- 1976
Hendren, Mrs. Adrian C., Box 87, Belmont, NC 28012 ---- 1959
Herbert, Mr. and Mrs. John S., Rabbitt Hill, Rt. 5, Ashland City, TN 37015 ---- 1960
Herndon, Mrs. Lee R., R.#6, Box 392, Elizabethton, TN 37643 ---- 1943
Hervey, Mr. and Mrs. George, 2005 Mallard Lane, Raleigh, NC 27609 ---- 1969
Hettish, Mr. and Mrs. J. Robert, 1018 Lawndale Dr., Murfreesboro, TN 37130 ---- 1967
Hetzler, Mr. and Mrs. Fred, Wilson Rd., Signal Mountain, TN 37377 ---- 1975
Hibbett, Mrs. Margaret, 511 Kingwood Dr., Murfreesboro, TN 37130 ---- 1973
Hicks, Miss Dorothy, A-3 Warner Park Apts., Nashville, TN 37205 ---- 1969
Hilton, Miss Esther A., 322 Park St., Bristol, VA 24201 ---- 1950
Hilton, Mr. Fred, 709 Morrison Ave., Kingsport, TN 37660 ---- 1976
Hinds, Mr. Roy T., Route 1, Rickman, TN 38580 ---- 1958
Hines, Lynn, Route 3, Joe Lewis, c/o E. Moss, Knoxville, TN 37920 ---- 1976
Holt, Mr. James G., 3373 Steve Rd. #13, Memphis, TN 38111 ---- 1972
Holzhauser, Mr. Ernst, Route 12, Cookeville, TN 38501 ---- 1974
Hooper, Mr. and Mrs. John, 614 Riverside Ave., Kingsport, TN 37660 ---- 1976
Horn, Mr. Dennis D., 222 Crestwood Dr., Tullahoma, TN 37388 ---- 1974
Hosier, Mr. and Mrs. Robert, 712 W. Spring St., Lebanon, TN 37087 ---- 1976
Hotchkiss, Mr. and Mrs. Olin W., 514 Spring Lane, Columbia, TN 38401 ---- 1975
Houk, Mrs. Ann M., 2815 22nd Ave., S., Nashville, TN 37215 ---- 1976
Howard, Dr. and Mrs. M. S., 224 S. Tarver Ave., Lebanon, TN 37087 ---- 1968
Howell, Dr. Joseph C., Dept. of Zoology, Univ. of Tenn.,Knoxville, TN 37916 ---- 1947
Howington, Mrs. Charlotte, 341 Glen Ave., Kingsport, TN 37665 ---- 1976
Hudson, Mr. and Mrs. Jack, 310 Latta Woods, Dyersburg, TN 38024 ---- 1966
Hughes, Mr. and Mrs. O. M., Route 3, Red Boiling Springs, TN 37150 ---- 1966
Hunter, Mr. and Mrs. R. E., 2002 Greenland Dr., Murfreesboro, TN 37130 ---- 1970
Hurley, Mr. Len, 484 Cherokee Blvd., Knoxville, TN 37919 ---- 1969

Ihrie, Mr. and Mrs. David H., 112 Groh St., Lawrenceburg, TN 38464 ---- 1973
Imhof, Mr. Thomas A., 1036 Pike Road, Birmingham, AL 35218 ---- 1949
Ivie, Mr. and Mrs. Joe P., Jr., 5425 Bradfield Dr., Nashville, TN 37220 ---- 1976

Jackson, Mr. and Mrs. Ernest, 716 West Wood Dr., Lebanon, TN 37087 ---- 1975
Jackson, Mr. Greg, 3429 Wisteria Dr., Birmingham, AL 35216 ---- 1970
Jackson, Mr. Joseph W., Route 5, Box 274, Blountville, TN 37617 ---- 1971
Jackson, Mr. and Mrs. William H., Route 5, Box 299, Nashville, TN 37221 ---- 1971
Jacobs, Mr. Steven E., 1402 Clinch Ave., S.W., Knoxville, TN 37916 ---- 1974
Jacobson, Mr. Daniel R., Box 6, Wildwood, GA 30757 ---- 1970
Jacobson, Mr. Lemuel, Box 6, Wildwood, GA 30757 ---- 1973
James, Mrs. C. E., 2150 Washington, Apt. 12, Memphis, TN 38104 ---- 1958
Jaquess, Mr. and Mrs. Frazier, 118 N. Cedar Ave., Cookeville, TN 38501 ---- 1974
Jenkins, Mr. Albert M., Box 292, Balboa, Canal Zone ---- 1976
Jessup, Mrs. Lee C., 4505 Harding Rd., #106, Nashville, TN 37205 ---- 1959
Johnson, Mrs. Amy, 318 E. Sixth St., Cookeville, TN 38501 ---- 1958
Johnson, Mr. John L., 1424 Mellon St., Pittsburgh, PA 15206 ---- 1973
Johnson, Dr. Lee R., 158 Windover Rd., #4, Memphis, TN 38111 ---- 1970
Johnson, Mrs. Randy, 1002 Hillcrest Dr., Murfreesboro, TN 37130 ---- 1973
Jones, Mrs. Almeda, Apt. 11, 190 N. Crest Rd., Chattanooga, TN 37404 ---- 1972
Jones, Mr. and Mrs. Arthur H., 207 Rainbow Dr., Lookout Mountain, TN 37350 ---- 1970
Jones, Mrs. C. M., Route 1, Murfreesboro, TN 37130 ---- 1975
Jones, Mrs. Carl A., 806 Hillrise Blvd., Johnson City, TN 37601 ---- 1966

Jones, Mr. and Mrs. Gary, Route 1, Box 51A, Readyville, TN 37149 ---------------- 1974
Jones, Mrs. Herman O., 1803 Jordan Ave., Murfreesboro, TN 37130 ----------------- 1975
Jones, Mr. and Mrs. John Paul, 3421 Hopkins Lane, Nashville, TN 37212 ------------ 1952
Jones, Col. and Mrs. Joseph W., Jr., Route 1, Pate Rd., Newbern, TN 38059 -------- 1975
Jones, Mrs. Jennings, 204 Apollo Dr., Murfreesboro, TN 37130 --------------------- 1971
Jones, Mr. Russell A., 4035 Grandview Ave., Memphis, TN 38111 -------------------- 1975
Jones, Mr. William, P. O. Box 142A, Tenn. Tech. University, Cookeville, TN 38501 - 1966
Judson, Mrs. Keith, Route 2, Maple Dale Lane, Brentwood, TN 37027 ---------------- 1975
Justice, Mr. and Mrs. John W., Route 9, Murfreesboro, TN 37130 ------------------ 1973

Kappa, Mr. Bill, 1425 Dolyns Dr., Kingsport, TN 37664 --------------------------- 1976
Keeton, Mr. Luther F., 80 Eastland Dr., Memphis, TN 38111 ------------------------ 1940
Keffer, Mr. Ralph E., 2307 Lakeview Dr., Johnson City, TN 37601 ------------------ 1970
Keister, Dr. and Mrs. Jamieson, 708 East Brow Rd., Lookout Mountain, TN 37350 ---- 1971
Killeffer, Miss Elizabeth, 2116 Holly Lane, Cookeville, TN 38501 ---------------- 1961
King, Mr. and Mrs. P. Glenn, 604 Iris Dr., Tullahoma, TN 37388 ---------------- 1967
Kirby, Mr. David R., 30 N. Idlewild,Apt. 203, Memphis, TN 38104 ------------------ 1976
Knauth, Mrs. Herman G., 4321 Brush Hill Rd., Nashville, TN 37216 ---------------- 1955
Knott, Mr. and Mrs. J. W., 38 Mimosa Dr., Chattanooga, TN 37415 ----------------- 1975
Koella, Mr. and Mrs. Jon A., Route 2, White Pine, TN 37890 ---------------------- 1967
Kolb, Mr. and Mrs. John L., 419 Fairfield Circle, Memphis, TN 38117 ------------- 1975
Kramer, Dr. and Mrs. Lee F., 321 Sheperd Hills Dr., Madison, TN 37115------------- 1966
Kuykendall, Mr. and Mrs. Sam J., 4525 Wayland Dr., Nashville, TN 37215 ----------- 1976

Lacy, Miss Beth, 3129 McClure Lane, S.E., Knoxville, TN 37920 ------------------- 1955
Larrabee, Dr. Allan R., 2110 Shennandoah Dr.,Memphis, TN 381134 ------------------ 1973
Lassiter, Ms. Mildred, 1216 Eastwood Dr., Cookeville, TN 38501 ----------------- 1976
Laughlin, Mr. Tom, Route 1, Arcadia, Kingsport, TN 37660 ------------------------- 1976
Lawrence, Mrs. J. W., 105 West End Heights, Lebanon, TN 37087 -------------------- 1968
Ledbetter, Mr. Jerald, 1016 Highland, Jackson, TN 38301 -------------------------- 1973
Lee, Mr. and Mrs. Bill Y., 5222-C Hickory Wood Lane, Hixson, TN 37343 ------------ 1976
Leggett, Mr. and Mrs. Kenneth, 2402 Magnolia St., Caruthersville, MO 63830 ------ 1967
Lewis, Mr. and Mrs. Hodge D., 408 Booth Rd., Chattanooga, TN 37411 --------------- 1973
Lewis, Mr. John L., Jr., 41 Sherwood Lane, Jackson, TN 38301 --------------------- 1976
Lewis, Mr. and Mrs. Marshall, 155 Cherry Rd., Memphis, TN 38117 ------------------ 1974
Lewis, Mr. Richard, Route 3, Box 683-B, Erwin, TN 37650 -------------------------- 1974
Link, Mr. and Mrs. T. B., Route 10, Quinland Rd., Cookeville, TN 38501------------ 1971
Linkous, Miss Donna, 307 Hammond Ave., Mount Carmel, TN 37642 ------------------ 1976
Lockridge, Mr. and Mrs. Bedford, 914 Woldridge Dr., Columbia, TN 38401------------ 1974
Loeb, Mrs. Mimi, 2805 Central Ave., Memphis, TN 38116 --------------------------- 1976
Lohrey, Mr. and Mrs. Sherwood, 595 West Clover Dr., Memphis, TN 38117 ------------ 1972
Loomis, Mrs. C. C., P. O. Box 283, Bristol, VA 24201 ---------------------------- 1950
Lorance, Mr. and Mrs. J. C., 13 McKendree Circle, Hermitage, TN 37076 ------------ 1974
Lothers, Dr. and Mrs. John E., Jr., 201 Hardy Rd., Lookout Mountain, TN 37350 ---- 1973
Lyon, Mrs. C. A., 4002 Wallace Lane, Nashville, TN 37215 ------------------------- 1975
Luckado, Mr. and Mrs. T. R., 937 McKellar Dr., Tullahoma, TN 37388 --------------- 1970
Lura, Dr. and Mrs. Richard, 1903 Eastwood Dr., Johnson City, TN 37601------------- 1973
Lyles, Mr. and Mrs. Henry, Route 6, Columbia, TN 38401 -------------------------- 1974
Lynn, Mrs. R. E., Route #3, Cato Rd., Nashville, TN 37218 ------------------------ 1951

MacMillan, Mrs. Portia R., 4511 Harpeth Hill Dr., Nashville, TN 37215 ------------ 1965
Mahoney, Mr. Anthony("Tony"), Route 13, Box 245, Clarksville, TN 37040 ---------- 1976
Manley, Mrs. Frances W., 10317 Long Rd., Arlington, TN 38002 --------------------- 1961
Mann, Mrs. Margaret Louise, 2189 Riverview Dr., Nashville, TN 37214 -------------- 1966
Marcrom, Mrs. H. D., 433 W. Fort St., Manchester, TN 37355 ----------------------- 1974
Marsh, Mrs. Frank A., Route 1, Box 148, Deer Lodge, TN 37726 -------------------- 1972
Martin, The Rev. and Mrs. John L., Rt. 9, Box 147, Ridgefield Rd., Elizabethton, TN 1971
Martin, Mrs. Pat, 1939 Russell Ct., Murfreesboro, TN 37130 ---------------------- 1974
Mason, Dr. Edna C., 401 Poplar St., Bristol, TN 37622 --------------------------- 1975
Masuoka, Mr. and Mrs. J., 2609 Natchez Trace, Nashville, TN 37212 --------------- 1971
Mayfield, Dr. and Mrs. George R., Jr., Maury Co. Hospital, Columbia, TN 38401 ---- 1961
McCamey, Dr. and Mrs. Franklin, Jr., 1037 Seville Dr., Clarkston, GA 30021 ------- 1931
McCaul, Mr. and Mrs. Doyle, 293 High Point Terrace, Memphis, TN 38111 ------------ 1972
McConnell, Mr. and Mrs. Chester, Route 6, Lawrenceburg, TN 38464 ----------------- 1972
McCracken, Mr. and Mrs. Ernest W., 1371 Randall Dr., Memphis, TN 38116 ----------- 1972
McCrary, Mrs. W. L., Box 57, Woodbury, TN 37190 --------------------------------- 1965
McFarland, Dr. and Mrs. Sam B., 242 East Spring St., Lebanon, TN 37087 ----------- 1966
McFarlin, Mr. and Mrs. L. L., 1011 Ewing St., Murfreesboro, TN 37130 ------------- 1970
McGee, Mr. G. Sanford, P. O. Box 475, Manchester, TN 37355 ----------------------- 1970
McGee, Dr. and Mrs. Sidney, Tenn. Tech. Univ., Cookeville, TN 38501 -------------- 1958
McGowan, Mr. and Mrs. George, 108 Darwin Lane, Oak Ridge, TN 37830 -------------- 1958
McGowan, Mr. and Mrs. W. F., 6318 East Valley Rd., Nashville, TN 37205 ----------- 1975
McGowan, Mr. and Mrs. Robert, Route 3, Box 86, Collierville, TN 38017 ------------ 1965
McKee, Mr. and Mrs. W. Reed, Cherokee Dr., Lebanon, TN 37087 --------------------- 1972
McKnight, Mr. Steve, 2602 Loyd St., Murfreesboro, TN 37130 ----------------------- 1973
McLeod, Miss Helena, D-2 Belle Meade Terrace Apts., Nashville, TN 37205 ---------- 1967
McMillan, Mrs. Ruth V., Route 2, Lascassas, TN 37085 ----------------------------- 1970
McKinney, Dr. M. B., Burchfiel Medical Bldg., Sevierville, TN 37862 -------------- 1976
McNeil, Mrs. Guy, P. O. Box 253, Bristol, VA 24201 ------------------------------- 1959
McNutt, Mr. and Mrs. Wm. P., Jr., 2935 Valley View Rd., Knoxville, TN 37917------- 1974
McPherson, Mr. Charles E., Austin Peay Hwy. #14, Rt. 1, Box 240-M-1, Hill Top Sub.
Brighton, TN 38011 --- 1951
McWhorter, Mrs. J. H., Route 2, Box 183, Ravenden, AR 72459 ---------------------- 1947
McWhorter, Mrs. J. R., 1713 Pawnee Dr., Knoxville, TN 37919 --------------------- 1974
Meadors, Mr. and Mrs. Howard, 109 Cleveland Rd., Rossville, GA 30741 ------------- 1958
Merritt, Mrs. Dixon, 10600 Alleghany Rd., Darien Center, NY 14040 --------------- 1950

Meyer, Miss Katherine, 6827 Pennywell Dr., Nashville, TN 37205 ---------- 1971
Milburn, Mr. and Mrs. Robert J., Jr., Sharon Hill Circle, Nashville, TN 37215 ---- 1975
Miller, Mr. and Mrs. George R., R.R.2, Box 198-E-10, Fairview, TN 37062 ---------- 1969
Miller, Mr. and Mrs. Herbert, 801 Piedmont St., Bristol, VA 24201 ---------- 1958
Miller, Mr. Kenneth, Box 193, Taft Hwy., Signal Mountain, TN 37377 ---------- 1976
Miller, Mr. and Mrs. Max, Sullins College, Bristol, VA 24201 ---------- 1966
Mitchell, Mr. Harold D., 238 West Royal Parkway, Williamsville, NY 14221 ---------- 1946
Mitchell, Mrs. Lottie H., 514 Brentlawn Dr., Nashville, TN 37220 ---------- 1959
Monk, Mr. Harry C., 2013 Capers Ave., Apt. 5, Nashville, TN 37212 ---------- 1919
Monroe, Dr. Burt L.,Jr.,Dept. Biology, Univ. of Louisville, Louisville, KY 40208 - 1969
Monroe, Mr. and Mrs. Robert A., 801 Vanosdale Rd., Knoxville, TN 37919 ---------- 1938
Moore, Mr. Brian, Riber Drive, Route 4, Mt. Juliet, TN 37122 ---------- 1974
Moore, Mrs. C. E., 439 Patterson St., Memphis, TN 38111 ---------- 1931
Moore, Mr. and Mrs. Charles L., 87 S. Marne St., Memphis, TN 38111 ---------- 1973
Moore, Mrs. J. T., Rt. 10, Quinland Rd., Cookeville, TN 38501 ---------- 1958
Moore, Miss Julia I., 106 Darwin Lane, Oak Ridge, TN 37830 ---------- 1949
Moore, Mrs. Myriam P., 101 Columbia Ave., Lynchburg, VA 24503 ---------- 1964
Moore, Miss Nelle, 275 Palisade Ave., Memphis, TN 38111 ---------- 1945
Morgan, Mr. and Mrs. John T., Sr., 625 Rebel Rd., Old Hickory, TN 37138 ---------- 1964
Morgan, Phyllis, P. O. Box 576, Beersheba Springs, TN 37305 ---------- 1974
Moss, Mr. Tom, Route 3, Joe Lewis Rd., Knoxville, TN 37920 ---------- 1976
Mountfort, Miss Penelope, 4313 Glen Eden Dr., Nashville, TN 37205 ---------- 1947
Mueller, Mrs. C. E., 1741 Prado, Memphis, TN 38116 ---------- 1974
Muffly, Mr. and Mrs. Gary, Windemere Lane, Powell, TN 37849 ---------- 1972
Murphy, Mrs. Charles B., Route 2, Brentwood, TN 37027 ---------- 1964

Neas, Mr. and Mrs. John Paul, Route 4, Greeneville, TN 37743 ---------- 1976
Neidert, Mr. and Mrs. Edward J., Box 133, Loretto, TN 38469 ---------- 1973
Nelson, Mr. and Mrs. H. C., 4107 Anderson Pike, Signal Mountain, TN 37377 -------- 1966
Newnam, Mr. J. Calvin, c/o Pink Palace Museum, 232 Tilton Rd., Memphis, TN 38111 - 1976
Nevius, Mr. and Mrs. Richard, Route 6, Box 348, Greeneville, TN 37743 ------ 1945 1937
Nichols, Mrs. Robert C., 4621 Franklin Rd., Nashville, TN 37220 ---------- 1967
Nicholson, Mr. Chuck, Univ. of Maine, School of Forest Resources, Orono, ME 04433- 1971
Nixon, Mrs. Ed P., 4 Boyd Mill Rd., Franklin, TN 37064 ---------- 1971
Nixon, Mr. and Mrs. James D., 3 Canterbury Rd., Clarksville, TN 37040 ---------- 1974
Noel, Miss Mary, 3641 Taliluna Ave., Apt. C-4, Knoxville, TN 37919 ---------- 1976
Norman, Mr. James L., 502 N. 14th, Muskogee, OK 74401 ---------- 1953
Norman, Miss Mabel, 1000 East Third St., Chattanooga, TN 37403 ---------- 1954
Norwood, Mr. and Mrs. Joseph R., 1329 Goodwin Ave., Charlotte, NC 28205 ---------- 1955
Noyes, Miss Helen, 115 Woodmont Blvd., Apt. 704, Nashville, TN 37205 ---------- 1962
Nunley, Mr. and Mrs. H. W., Route 3, Bluff City, TN 37618 ---------- 1950
Nunnally, Miss Louise, 1436 Agawela Ave., Apt. I, Knoxville, TN 37919 ---------- 1965

Odom, Dr. and Mrs. E. P., 1700 E. Main St., Murfreesboro, TN 37130 ---------- 1970
Odom, Mr. Tom, 3911 Inwood Dr., Kingsport, TN 37664 ---------- 1974
Ogden, Mr. John C., 144 Mohawk St., Tavernier, FL 33070 ---------- 1952
Olson, Mr. and Mrs. William H., 709 Aeronca Rd., Knoxville, TN 37919 ---------- 1974
O'Neil, Dr. A. W., P. O. Box 586, Falfurrias, TX 78355 ---------- 1961
Orleans, Mrs. Jane, 1218 Ford Place, Knoxville, TN 37920 ---------- 1949
Orr, Miss Katherine, 4004 Vailwood Dr., Nashville, TN 37215 ---------- 1971
Osborn, Mr. and Mrs. Charlie, 201 Bartonwood Dr., Lebanon, TN 37087 ---------- 1974
Osborne, Mr. and Mrs. Joe, 1525 Robin Hood Lane, Johnson City, TN 37601 ---------- 1973
Ottenfeld, Mr. and Mrs. C. T., Brookwood, Route 5, Bristol, TN 37622 ---------- 1966
Overton, Mrs. E. E., 3316 Bunker Hill Dr., Knoxville, TN 37920 ---------- 1947
Owen, Mr. and Mrs. J. B., 2930 North Hills Blvd., Knoxville, TN 37917 ---------- 1947
Owen, Mr. and Mrs. Edward A., P. O. Box 144, Williston, TN 38076 ---------- 1949

Paige, Mrs. Louise, 91 N. Belvedere, Apt. 12, Memphis, TN 38104 ---------- 1967
Papachristou, Dr. and Mrs. Gerald C., 1805 Mignon Ave., Memphis, TN 38107 -------- 1975
Parks, Mrs. Beulah, 313 McBrien Rd., Chattanooga, TN 37411 ---------- 1968
Parmer, Mr. and Mrs. Henry E., 3800 Richland Ave., Nashville, TN 37205 ---------- 1955
Patrick, Mr. and Mrs. Oscar, 4641 Villa Green Dr., Nashville, TN 37215 ---------- 1969
Patterson, Mr. and Mrs. David E., Highland View Academy, Rt.1, Box 286, ----------
Hagerstown, MD 21740 1964
Patterson, Mrs. David G., 4505 Harding Rd., Apt. 167, Nashville, TN 37205 -------- 1971
Patterson, Miss Delera, Route 2, Box 340A, Church Hill, TN 37642 ---------- 1976
Patterson, Mr. J. Hunter, Box 116, St. Andrews College, Laurinburg, NC 28352 ----- 1970
Patterson, Mr. Michael S., Talge Hall, Room 128, Collegedale, TN 37315 ---------- 1972
Patterson, Mr. Truett C., Box 1906, Carson Newman College, Jefferson City TN 37760 1976
Patton, Dr. John, Box 60, M.T.S.U., Murfreesboro, TN 37130 ---------- 1970
Paul, Mr. and Mrs. Byron, 115 Woodmont Blvd., Nashville, TN 37205 ---------- 1966
Payne, Mr. George, Jr., 6643 Monmouth Dr., Memphis, TN 38138 ---------- 1970
Peake, Mr. and Mrs. Richard H., Jr., Box 28, Wise, VA 24293 ---------- 1964
Peeples, Mr. and Mrs. Joseph S., 54 Lombardy Rd., Memphis, TN 38111 ---------- 1976
Pendleton, Mrs. Harry P., 1126 Kirkwood Dr., Murfreesboro, TN 37130 ---------- 1973
Penley, Jenny, 2004 Long St., Kingsport, TN 37665 ---------- 1976
Percival, Mr. Charles J., II, c/o Sam Yoder, Route 1, Hicksville, OH 43526 ------- 1974
Peterson, Dr. Clell T., Box 2364 University Station, Murray, KY 42071 ---------- 1971
Phillips, Dr. Allan R., Apartado Postal 370, San Nicolas de los Garza, Nuevo Leon,
Mexico ---- 1943
Phillips, Mr. and Mrs. Charles L., 2495 Shenandoah Dr., Chattanooga, TN 37421 ---- 1975
Pierce, Dr. David A., Box 391, MTSU, Murfreesboro, TN 37130 ---------- 1973
Pitts, Mr. and Mrs. T. David, Biology Dept., Univ. of Tenn., Martin, TN 38237 ---- 1965
Pope, Mr. and Mrs. Ray, Forrest Ave., Lebanon, TN 37087 ---------- 1975
Porter, Mr. and Mrs. Delton, 527 Second St., Lawrenceburg, TN 38464 ---------- 1973
Potter, Miss Mary Ann, 6102 Clark Rd., Harrison, TN 37341 ---------- 1971

Potts, Mr. Clyde, 13 Bromwich Lane, Bella Vista, AR 72712 -------------------- 1976
Potts, Mr. and Mrs. L. Don, Wolftever Woods, Harrison, TN 37341 --------------- 1976
Potts, Miss Mabel Ellis, 555 Eastland St., Gallatin, TN 37066 ----------------- 1971
Powell, Mr. Albert L., Route #1, Maceo, KY 42355 ------------------------------ 1934
Pressnell, Mr. and Mrs. Allen, Route 3, Columbia, TN 38401 -------------------- 1976
Preston, Mr. Cecil M., Route 2, Box 364, Kingston, TN 37763 ------------------- 1971
Price, Mrs. David, Jr., 1954 Old Hickory Blvd., Brentwood, TN 37027 ----------- 1970
Price, Mr. and Mrs. R. E., P. O. Box 7, Corinth, MS 38834 --------------------- 1975
Pulley, Mr. James Andrew ("Andy"), 2314 Ridgecrest Dr., Nashville, TN 37216 ------ 1976
Purnell, Mrs. Jim, 120 Oak Hill Dr., Lebanon, TN 37087 ------------------------ 1974
Puryear, Mr. and Mrs. W. A., 6666 Brookmont Terr., Apt. 907, Nashville, TN 37205 - 1958

Quanrud, Mrs. Rebecca, 1204 N. Third St., Bismarck, ND 58501 ------------------ 1976
Quinn, Mr. Yancey M., ---- 1972

Ragland, Miss Ella H., 920 N. Lafayette, Brownsville, TN 38012 ---------------- 1945
Raiford, Mr. and Mrs. Walker C., 274 Blue Grass Dr., Hendersonville, TN 37075 --- 1970
Ramm, Ruth and Heinrich, 606 Larrymore St., Manchester, TN 37355 -------------- 1974
Raye, Mr. Larry D., 4008 Dorcas Dr., Nashville, TN 37215 ---------------------- 1976
Reed, Mr. Matthew R., 240 East Cherry Circle, Memphis, TN 38117 --------------- 1971
Reed, Mrs. Ralph R., 240 East Cherry Circle, Memphis, TN 38117 ---------------- 1971
Reedy, Miss Marie, Rt. 8, Box 7, 143 Shenandoah Dr., Franklin, TN 37064 ------- 1975
Reeves, Mr. Mark Edward, Route 2, Box 12, Loretto, TN 38469 ------------------- 1976
Regen, Mr. and Mrs. W. M., 113 Oak Hill Circle, Lebanon, TN 37087 ------------- 1974
Reid, Mr. Robert R., Jr., 2616 Mountain Brook Parkway, Mountain Brook, AL 35223 -- 1972
Restivo, Mr. and Mrs. Ernie J., 5880 Macinness Ave., Memphis, TN 38138 -------- 1968
Reynolds, Mr. and Mrs. A. E., 807 Maple, Bristol, TN 37622 -------------------- 1958
Rich, Mr. and Mrs. C. W., 1544 Eastlawn St., Memphis, TN 38111 ---------------- 1975
Richards, Mrs. Lawrence D., 1921 Moran Dr., Nashville, TN 37216 --------------- 1972
Richardson, Mr. Larry R., 1704 Shackleford Rd., Nashville, TN 37215 ----------- 1974
Richmond, Mr. and Mrs. Miser, Box 5211, Tenn. Tech., Cookeville, TN 38501 ------ 1941
Rickert, Mr. Jon E., 122 North Main, Elizabethtown, KY 42701 ------------------ 1961
Riddle, Mr. and Mrs. Henry, Loretto, TN 38469 --------------------------------- 1972
Riddle, Mrs. James T., 231 Haverford Ave., Nashville, TN 37205 ---------------- 1971
Riggins, Mr. and Mrs. John, 746 Harpeth Parkway West, Nashville, TN 37221 ------ 1969
Ring, Mr. and Mrs. Ralph, 1815 N. Locust Ave., Lawrenceburg, TN 38464 --------- 1972
Rini, Mr. and Mrs. S. Jack, 740 W. Clover Dr., Memphis, TN 38117 -------------- 1954
Ringger, Mrs. Paul, 1575 Eastmoreland, Memphis, TN 38104 ---------------------- 1975
Roark, Mrs. Martha L., 23 Sevier, Memphis, TN 38111 --------------------------- 1973
Robb, Mr. Jim, Old Stone Fort State Park, Manchester, TN 37355 ---------------- 1974
Roberts, Mr. Herbert W., Big Cypress Tree Natural Area, Greenfield, TN 38230 ----- 1976
Robertson, Mrs. James, 523 Wanda Dr., Nashville, TN 37210 --------------------- 1974
Robison, Mr. and Mrs. David, Route 5, Box 359 Leeville Rd., Lebanon, TN 37087 --- 1975
Roehr, Mr. Kerry, 3635 Crestwyn Dr., Germantown, TN 38138 --------------------- 1975
Rolleri, Mr. and Mrs. Eugene, 653 N. Russell Rd., Jackson, TN 38301 ----------- 1976
Rook, Mr. and Mrs. Paul D., Apt. I 106, 3500 Sutherland Ave., Knoxville, TN 37919- 1975
Ross, Mr. Hollis T., Route 1, Box 81, Lewisburg, PA 17837 --------------------- 1933
Rowlett, Mr. and Mrs. Larry, Route 9, Box 544, Shannon View Trailer Park, Jonesboro,
TN 37659 1976
Ryder, Mr. and Mrs. Sterling C., 129E Tenn. Ave., Oak Ridge, TN 37830 --------- 1970
Rutkowski, Miss Louise H., 1540 Forrest Ave., Memphis, TN 38112 --------------- 1976

Sacharin, Miss Ilayne, 5361 Pecan Grove Lane, Memphis, TN 38117 -------------- 1976
Sands, Mrs. Lada, 1101 Woodview Ave., Memphis, TN 38117 ----------------------- 1975
Sanders, Mr. and Mrs. Kenneth B., Route 28, Box 203, Knoxville, TN 37920 ------- 1955
Sanders, Miss Tammy, 2835 Curtis St., Memphis, TN 38118 ----------------------- 1976
Satterwhite, Mr. and Mrs. John, Route 7, Campbellsville Pike, Columbia, TN 38401 - 1974
Sawyer, Mrs. Herman, 604 Estes Ave., Nashville, TN 37215 ---------------------- 1962
Sayle, Mr. Harry E., 1767 Vinton Ave., Memphis, TN 38104 ---------------------- 1974
Schell, Mr. Edward H., 2514 Brown's Mill Rd., Johnson City, TN 37601 ---------- 1975
Schiller, Mrs. Henry A., 3572 Allendale Rd., Memphis, TN 38111 ---------------- 1956
Schreiber, Mr. and Mrs. Edwin D., Sr., 3518 Pleasant Valley Rd., Nashville, TN 37204 1963
Schuerman, Mr. and Mrs. Max, 3906 Woodmont Lane, Nashville, TN 37215 ---------- 1961
Schwamm, Mr. and Mrs. Justin, 4208 McCampbell Lane, Knoxville, TN 37918 ------- 1969
Scott, Mr. Frederic R., 115 Kennondale Lane, Richmond, VA 23226 --------------- 1955
Scott, Dr. and Mrs. Harold, Knob Creek Rd., Columbia, TN 38401 ---------------- 1976
Scott, Miss Jeanne M., 2095 Poplar Ave., Apt. 64, Memphis, TN 38104 ----------- 1975
Scott, Mr. and Mrs. Leland G., Hickory Harbor, Gallatin, TN 37066 ------------- 1973
Scurlock, Mr. William H., 3722 Richland Ave., Nashville, TN 37205 ------------- 1975
Seahorn, Mrs. Charles W., Sr., 1794 Riverdale Rd., Germantown, TN 38138 ------- 1940
Sellars, Mrs. Clyde, 111 Caruthers, Lebanon, TN 37087 ------------------------- 1969
Sellars, Mr. and Mrs. John W., 122 Greenlawn Ave., Lebanon, TN 37087 ---------- 1969
Senn, Mrs. J. R., 110 Chris Lane, Chickamauga, GA 30707 ----------------------- 1975
Senter, Rev. and Mrs. William F., 313 West Hill Dr., Lebanon, TN 37087 -------- 1968
Sexton, Mr. and Mrs. John W., Route 1, Dover, TN 37058 ------------------------ 1971
Seymour, Dr. Edward T., 5055 Lakeview Dr., Nashville, TN 37220 ---------------- 1971
Shafer, Mr. and Mrs. W. Lee, Route 1, Whitwell, TN 37397 ---------------------- 1969
Sharp, Mr. and Mrs. A. Boyd, 245 Peters Rd., Knoxville, TN 37919 -------------- 1968
Sharp, Mr. and Mrs. Robert K., 505 Chesterfield Ave., Nashville, TN 37212 ------ 1963
Sharp, Mr. Vernon, Jr., Rt. 5, Wilson Pike, Franklin, TN 37064 ---------------- 1921
Sharp, Mrs. Walter, Route 2, Beech Creek Rd., Brentwood, TN 37027 ------------- 1952
Shaughnessy, Mr. Winslow M., c/o Cumberland Museum & Science Center, 800 Ridley Ave.
Nashville, TN 37203 ---- 1971
Shearer, Mrs. Lucille, 314 South Palisades Dr., Signal Mountain, TN 37377 ------ 1976
Shiles, Mr. Gene, 536 Bluebird Circle, Chattanooga, TN 37421 ------------------ 1976
Sigel, Mr. and Mrs. Harry, 118 West Valley St., Abingdon, VA 24210 ------------ 1976

Silver, Dr. and Mrs. James L., Jr., 218 Meadowcrest, Bristol, VA 24201 ----------- 1973
Simbeck, Mr. and Mrs. Donnie, Box 164, Loretto, TN 38469 ------------------------ 1972
Simpson, Dr. Marcus B., Jr., 9706 Basket Ring Rd., Columbia, MD 21045 ------------ 1961
Simpson, Mr. and Mrs. William F., Jr., 1220 Pilleaux Rd., Knoxville, TN 37912 --- 1974
Sinclair, Mr. and Mrs. Robert E., 7205 Willow Creek Dr., Nashville, TN 37221------ 1973
Sites, Mr. Jack W., Jr., Colony Oaks Apts., Apt. 51, Rebecca Rd., Bryan, TX 77801- 1975
Skipper, Mrs. Carlos, 912 C James Blvd., Signal Mountain, TN 37377 --------------- 1975
Sliger, Mr. and Mrs. Henry L., 208 S. Germantown Rd., Chattanooga, TN 37411 ------ 1954
Slonaker, Mr. Jake, Route 1, Box 82, Greenwood Dr., Johnson City, TN 37601 ------- 1975
Smathers, Mr. and Mrs. Hugh, 128 Asbury Lane, Gatlinburg, TN 37738 --------------- 1976
Smith, Mr. Alan, 7017 Northshore Dr., Knoxville, TN 37919 ------------------------ 1976
Smith, Miss Alice H., Route 1, Box 323, Covington, TN 38104 ---------------------- 1933
Smith, Dr. and Mrs. Arlo I., 3724 Oakley Ave., Memphis, TN 38111 ----------------- 1953
Smith, Mrs. Arthur S., 100 Otari Dr., Rt. 14, Kingsport, TN 37664 ---------------- 1960
Smith, Mr. Charles R., Dept. of Conservation, Fernow Hall, Cornell Univerity,
Ithaca, NY 14850 ---- 1963
Smith, Mrs. G. Gould, Rt. 7, Cainsville Rd., Lebanon, TN 37087 ------------------- 1970
Smith, Mrs. Lucile,1328 Longview Dr., c/o T.C.Smith, Woodbridge, VA 22191 -------- 1952
Smith, Mr. and Mrs. Louis F., 3809 Riverview Rd., Knoxville, TN 37914 ----------- 1954
Smith, Mr. R. Demett, Jr., 1024 Coronado Dr., Huntsville, AL 35802 -------------- 1970
Smith, Mr. Stephen, 5520 Stanford Dr., Nashville, TN 37215 ---------------------- 1970
Smith, Mr. Timmy, Route 10, Cookeville, TN 38501 -------------------------------- 1974
Smith, Mr. and Mrs. Wm. A., Rt. 9, Box 154, Hickory Ridge Rd., Lebanon, TN 37087 - 1971
Smotherman, Mr. and Mrs. Cromer, Rt. 1, Box 1, Lawrenceburg, TN 38464 ----------- 1972
Snyder, Dr. and Mrs. David H., Dept. of Biology, Austin Peay State University,
Clarksville, TN 37040 --- 1972
Spain, Mr. and Mrs. A. D., Box 322, Laws Rd., Whites Creek, TN 37189 ------------ 1971
Speck, Mr. and Mrs. H. H. Speck, 228 East Spring St., Lebanon, TN 37087 ---------- 1974
Smith, Dr. Radford, 136 Park Circle, Murfreesboro, TN 37130 --------------------- 1964
Spees, Dr. and Mrs. Royal, Box 356, Greeneville, TN 37743 ----------------------- 1962
Spence, Miss Alberta, 1810 E. Main St., Murfreesboro, TN 37130 ------------------ 1974
Spiotta, Mr. Robert S., 1185 Fairmeadow Rd., Memphis, TN 38117 ------------------ 1974
Spofford, Dr. Walter "Aguila-Rancho", Portal, AZ 85632 -------------------------- 1940
Stallings, Miss Pat, 406 North 17th St., Nashville, TN 37206 -------------------- 1970
Stamm, Mrs. F. W., 9101 Spokane Way, Louisville, KY 40222 ----------------------- 1946
Stamper, Miss Yvonne, Rt. 6, Bell Ridge Rd., Kingsport, TN 37660 ---------------- 1976
Stanford, Mrs. H. E., Taylorsville Rd., Lebanon, TN 37087 ----------------------- 1974
Stedman, Mr. Claude, 1106 Grantland Ave., Murfreesboro, TN 37130 ---------------- 1973
Steele, Mr. and Mrs. Chas. H., Rash Ragsdale Road, Brentwood, TN 37027 ----------- 1967
Stephens, Miss Ella, Box 35, Farner, TN 37333 ----------------------------------- 1965
Stephens, Mr. and Mrs. Jos. P., 1262 Hillwood Dr., Clarksville, TN 37040 --------- 1974
Stevens, Mr. Jeff, P. O. Box 524, Collegedale, TN 37315 ------------------------- 1973
Stone, Mr. Joe, 6863 Longview Rd., Chattanooga, TN 37421 ------------------------ 1976
Stoner, Mr. and Mrs. Floyd Stoner, 192 Williford St., Memphis, TN 38112 --------- 1961
Street, Mr. and Mrs. C. P., 2410 Golf Club Ln., Nashville, TN 37215 ------------- 1963
Stribling, Betty K., 1002 McKellar Dr., Tullahoma, TN 37388 --------------------- 1974
Stringer, Mrs. Kirby, 1833 Primrose Ave., Nashville, TN 37212 ------------------- 1947
Stringer, Mr. and Mrs. Robert E.M., 205 Lisa Lane, Nashville, TN 37210 ----------- 1962
Stuart, Mr. and Mrs. Gordon, 132 Oakview Dr., Bristol, BA 24201 ----------------- 1970
Stupka, Mr. and Mrs. Arthur, Route 3, Gatlinburg, TN 37738 ---------------------- 1935
Styke, Mr. and Mrs. A. N., Jr., 1101 Summer St., Manchester, TN 37355 ------------ 1975
Sullivan, Mr. and Mrs. Roy H., Route 5, Box 206, Cookeville, TN 38501 ------------ 1971
Sulser, Miss Anna, 4621 Tara Dr., Nashville, TN 37215 --------------------------- 1973
Sumara, Mrs. C. K. G., 1011 Church St., Tiptonville, TN 38079 ------------------- 1965
Swafford, Mr. Carl, Rt. 31, Tooles Bend Rd., Knoxville, TN 37922 ---------------- 1968
Swan, Mr. and Mrs. Dana, Star Route Box 32, Thaxton, MS 38871 ------------------- 1976
Swanson, Mr. Charles, 2467 Wildwood Dr., Kingsport, TN 37660 -------------------- 1976
Swindell, Mr. and Mrs. Thos.C., 404 Clay St., Alexander City, AL 35010 ---------- 1955
Switzer, Mrs. A. H., 1620 Fairidge Pl., Kingsport, TN 37664 ---------------------- 1949
Swofford, Mr. and Mrs. Glenn, 550 Valley St., Erwin, TN 37650 -------------------- 1976

Tanner, Mr. and Mrs. Edward F., 402 Colgate Ave., Lebanon, TN 37087 -------------- 1969
Tarbell, Dr. and Mrs. D. Stanley, 6033 Sherwood Dr., Nashville, TN 37215 --------- 1968
Taylor, Mrs. Alexander W., Whip-poor-will Hollow, Pinewood Rd., Rt. 6, Franklin, TN 1971
Taylor, Mr. Norman P., Box 210, Shady Valley, TN 37688 --------------------------- 1976
Taylor, Mr. and Mrs. Porter, Box 169, Mt. Juliet, TN 37122 ----------------------- 1965
Taylor, Mr. Wiley E., Box 210 Shady Valley, TN 37688 ---------------------------- 1976
Taylor, Mr. Richard G., 4350 Tuckahoe, Memphis, TN 38117 ------------------------ 1975
Tillman, Mr. Barry, Box 3808, Sta. B., Vanderbilt Univ., Nashville, TN 37235 ----- 1976
Tinnon, Miss Thelma, P. O. Box 525, Cookeville, TN 38501 ------------------------- 1960
Toline, Mr. and Mrs. F. R., Rt. 8, Box 232, Cookeville, TN 38501 ----------------- 1965
Torbjorn, S'All, c/o James M. Vest, 667 N. Idlewild, Memphis, TN 38107 ----------- 1976
Torti, Mrs. M. L., Sr., 3107 Spottswood Ave., Memphis, TN 38111 ----------------- 1938
Trabue, Mr. and Mrs. Lawrence O., 3819 Harding Pl., Nashville, TN 37215 ---------- 1960
Travis, Dr. Vaud A., Jr., 4526 Water Oak Rd., Charlotte, NC 28211 ---------------- 1968
Tunsberg, Mr. and Mrs. Douglas L., 1314 S. Seminole Dr., Chattanooga, TN 37412 --- 1956
Turner, Dr. and Mrs. Carroll C., 407 Greenway Rd., Memphis, TN 38117 ------------- 1960
Tyler, Mrs. Daniel E., P. O. Box 372, Lake Junaluska, NC 28745 ------------------- 1974

Vance, Mr. J. D., 4950 Marianne Lane, Memphis, TN 38117 -------------------------- 1973
Van Cleve, Mr. G. Bernard, 304 S. Winebiddle St., Apt. 2, Pittsburgh, PA 15224 --- 1961
Van Gelder, Mr. and Mrs. Enno, 416 Hilltop Rd., Bristol, TN 37622 ---------------- 1961
Varney, Mr. William R. 1976
Vaughan, Mrs. Frances, Route 6, Murfreesboro, TN 37130 --------------------------- 1971
Vaughn, Mr. Wm. J., Cloverland Dr., Brentwood, TN 37027 -------------------------- 1964

Wade, Mrs. Legia, 4615 Oak Forest Way #5, Memphis, TN 38118	1972
Wade, Miss Mary Ann, 1644 Goodbar Ave., Memphis, TN 38104	1973
Wakeland, Violette, Box 953, Monteagle, TN 37356	1974
Waldron, Dr. and Mrs. James E., 1626 Yorkshire Dr., Memphis, TN 38117	1970
Walker, Miss Mildred, 312 West Sixth St., Columbia, TN 38401	1974
Walkup, Mr. and Mrs. Kenneth A., 309 Leopole Rd., Nashville, TN 37211	1971
Wallace, Miss Ellen B., 115 Woodmont Blvd., Apt. 418, Nashville, TN 37205	1961
Wallace, Dr. and Mrs. Gary O., Rt. 7 Sunrise Dr., Elizabethton, TN 37643	1967
Waller, Mr. Wade, 3680 Merritt St., Memphis, TN 38128	1969
Waller, Mrs. Martha, 3680 Merritt St., Memphis, TN 38128	1974
Walley, Dr. and Mrs. William, 712 Chippendale Rd., Kingsport, TN 37660	1976
Walter, Mrs. E. D., 10 Fairyland Cottages, Lookout Mountain, TN 37350	1975
Wanamaker, Mr. Monty, Box 282, Monteagle, TN 37356	1975
Warriner, Dr. and Mrs. R. B., Jr., 205 Linden St., Corinth, MS 38834	1973
Waters, Mrs. Henry, Route 7 Greenwood Farms, Lebanon, TN 37087	1950
Watkins, Miss Violet Jane, 2845 Kenway Rd., Nashville, TN 37215	1955
Watson, Mr. Joe, RFD 1, Box 233, Rutledge, TN 37861	1973
Weise, Dr. Charles M., 2314 East Stratford Ct., Milwaukee, WI	1954
Welsh, Miss Margaret, 1803 Cedar Lane, Nashville, TN 37212	1971
Welty, Mrs. William, 115 Castle Heights Ave., Lebanon, TN 37087	1967
Wendt, Miss Chrissa, 825 N. Drive, Cookeville, TN 38501	1960
West, Mr. Eugene M., P. O. Box 1662, Fairfield Glade, TN 38555	1962
Westmoreland, Mr. and Mrs. L. P., 1213 Worthington, Chattanooga, TN 37405	1974
White, Mrs. George, 225 Oakwood, Lewisburg, TN 37091	1976
White, Miss Marie, 909 Milfred Ave., Cookeville, TN 38501	1961
White, Miss V. Ruth, 137 Third Ave., N., Franklin, TN 37064	1950
Whitehead, Mr. Clifton J., Jr., 5019 Temple Rd., Nashville, TN 37221	1972
Whitehead, Mrs. Thomas W., Route 8, Johnson City, TN 37601	1974
Whitley, Mr. and Mrs. William T., 400 Colonial Rd., Memphis, TN 38117	1972
Whittington, Mr. Richard L., 3593 Norriswood Ave. #2, Memphis, TN 38111	1974
Wiener, Mrs. Margaret L., 134 Alton Rd., Nashville, TN 37205	1975
Wilbur, Mr. and Mrs. Richard C., 230 Ussery Rd., Clarksville, TN 37040	1969
Wilkinson, Mrs. Harvie B., 418 N. Hermitage Ave., Lookout Mountain, TN 37350	1961
Wilkinson, Dr. and Mrs. R. Dean, Horn Springs Road, Lebanon, TN 37087	1960
Williams, Miss Dorothy, 2511 Sherrod Rd., Knoxville, TN 37920	1958
Williams, Ms. Florence, Route 8, Box 125, Cookeville, TN 38501	1976
Williams, Mr. and Mrs. R. J., 123 Greenlawn Dr., Lebanon, TN 37087	1972
Williams, Mr. and Mrs. W. B., 921 W. Broadway, Maryville, TN 37801	1964
Williamson, Miss Marilyn, Natchez Trace State Park, Wildersville, TN 38388	1969
Williamson, Mrs. W. G., 4237 Auburn Rd., Memphis, TN 38116	1934
Willis, Mr. and Mrs. Wylie R., 103 Buffalo St., Lawrenceburg, TN 38464	1972
Willmore, Mrs. Herschel, Route 2, Box 158, Gallatin, TN 37066	1971
Wills, Mr. and Mrs. Jesse E., 1201 Belle Meade Blvd., Nashville, TN 37205	1948
Wilmeth, Mr. and Mrs. C. E., 606 S. Graham St., Memphis, TN 38111	1948
Wilson, Mrs. Charles W., 2355 Eastwood Place, Memphis, TN 38112	1967
Wilson, Mr. Jeff R., 519 S. Rembert St., Apt. 2, Memphis, TN 38104	1975
Wilson, Dr. and Mrs. Theodore, Jr., 3366 Oak Lake Cove, Memphis, TN 38118	1975
Wilson, Mr. and Mrs. Tom E., 404 Foxcroft Rd., Greenville, SC 29607	1971
Winnett, Wanda and Truman, Hillsboro, TN 37342	1974
Wodtke, Mrs. C. H., 609 W. Vanderbilt, Oak Ridge, TN 37830	1967
Wodzenski, Mr. and Mrs. Benny R., Box 64, Collegedale, TN 37315	1975
Wooldridge, Mrs. Rose Newton, 2042 Cowden Ave., Memphis, TN 38104	1945
Woodruff, Mr. Roger, Room 145, Talge Hall, Collegedale, TN 37315	1972
Workman, Miss Virginia, 3106 West End Ave., Apt. A-3, Nashville, TN 37203	1960
Worley, Mr. and Mrs. Richard C., 500 Winston Rd., Chattanooga, TN 37405	1970
Wright, Mr. and Mrs. John S., Route 5, Box 103-B, Southwood, SD	1976
Yambert, Mr. and Mrs. D. W., P. O. Box 40747, Nashville, TN 37204	1941
Young, Mr. and Mrs. Howard, 1909 East Sevier Ave., Kingsport, TN 37664	1973
Young, Mr. James B., 417 Club Lane, Louisville, KY 40207	1938
York, Mr. and Mrs. Grady L., 400 College St., Manchester, TN 37355	1974
Zimmerman, Mrs. Guy, 1010 Country Club Rd., Apt. N1,Cookeville, TN 38501	1970

LIBRARIES--MUSEUMS--INSTITUTIONS

Library, Museum of Comparative Zoology, Harvard University, Cambridge, MA 02138 --- 1943
The Charleston Museum, 121-25 Rutledge Ave., Charleston, SC 29416 --- 1934
Library, Field Museum of Natural History, Roosevelt Rd. & Lakeshore Dr., Chicago, IL 60605 --- 1935
C. A. Exchanges, The Center for Research Libraries, 5721 Cottage Grove Ave., Chicago, IL 60637 --- 1966
Library, Periodical Section, University of Kansas, Lawrence, KS --- 1956
Serials Dept., McGill University Library, 3459 McTavish St., Montreal 112, P.Q.Canada 1930
Library, Periodical Dept., MTSU, Murfreesboro, TN 37130 --- 1961
Tennessee State Library & Archives, Nashville, TN 37219 --- 1930
Ornithology Library, Peabody Museum, Yale University, Room 205, New Haven, CT 06508 1963
Library, National Audubon Society, 950 Third Ave., New York, NY 10022 --- 1931
Periodicals Serials Center, D. H. Hill Library, N. C. State University, P. O. Box 5007, Raleigh, NC 27607 --- 1960
Acquisitions Division, Albert R. Mann Library, Ithaca, NY 14850 --- 1967
City of Kingsport, Bays Mountain Park Office, Rt. 4, Kingsport, TN 37660 --- 1970
Periodicals Librarian, Jere Whitson Memorial Library, Tenn. Tech. University, Cookeville, TN 38501 --- 1972
Tall Timbers Research Station, Route 1, Box 160, Tallahassee, FL 32301 --- 1971
Alexander Library, Edward Gray Institute of Field Ornithology, Dept. of Zoology, South Parks Rd., Oxford, 1 3 PS, England --- 1968
Tennessee Valley Authority, Forestry Library, Norris, TN 37828 --- 1974
Library, Periodicals Dept., The University of Tenn. at Chattanooga, Chattanooga, TN 37401 --- 1970
Periodicals Section, New York State Library, Albany, NY 12234 --- 1953
Serials & Binding Dept., Main Library, Emory University, Atlanta, GA 30322 --- 1940
Acquisitions Dept., Serials Div., Library, Louisiana State University, Baton Rouge, LA 70803 --- 1947
Serials Dept., General Library, University of California, Berkeley, CA 94720 --- 1934
Chattanooga Public Library, 601 McCallie Ave., Chattanooga, TN 37403 --- 1932
Serials Div., Library, Ohio State University, Columbus, OH 43210 --- 1945
Science-Engineering Library, 672 Buehler Hall, Univ. of Tenn., Knoxville, TN 37916- 1942
Memphis Public Library & Information Center, 1850 Peabody Ave., Memphis, TN 38104 - 1940
Serials Dept., John Brister Lib., Memphis State Univ. Memphis, TN 38152 --- 1941
Library, Murray State University, Murray, KY 42071 --- 1946
Periodicals Dept., Joint University Libraries, Nashville, TN 37203 --- 1935
Tulane University, Library, Serials Section, New Orleans, LA 70118 --- 1944
Library, Carnegie Museum, 4400 Forbes Ave., Pittsburgh, PA 15213 --- 1956
Library, Royal Ontario Museum, 100 Queen's Park, Toronto 5, Ontario, Canada --- 1948
Serials Section, Library, University of Mississippi, University, MS 38677 --- 1947
Woodward Library, Serials, Univ. of British Columbia, 2075 Wesbrook Pl., Vancouver, British Columbia, Canada, V6T, 1W5 --- 1958
Library, Indiana University of Pennsylvania, Indiana, PA 15701 --- 1967
Accessions Dept., British Library, Lending Division, Boston SPA, Wetherby, England LS23 7BQ --- 1968
Pattee Library, Periodicals Sect., Penn. State Univ., University Park, PA 16802 --- 1968
Periodicals Dept., Earl Gregg Swem Lib., College of William & Mary, Williamsburg, VA 23185 --- 1967
Jessie Ball DuPont Lib., Serials Dept., Univ. of the South, Sewanee, TN 37375 --- 1968
Periodicals Dept., Library, East Tenn. State Univ., Johnson City, TN 37601 --- 1969
Agriculture Library, Agricultural Science Center North, University of Kentucky, Lexington, KY 40506 --- 1969
Mississippi Museum of Natural Science, 111 Jefferson St., Jackson, MS 39202 --- 1971
Acquisitions Dept., Mitchell Memorial Library, Mississippi State University, State College, MS 39762 --- 1972
Dwight B. Waldo Library, Serials Records, Western Michigan Univ.,Kalamazoo, MI 49001 1972
Library-Serials, University of TN at Nashville, 323 McLemore St., Nashville, TN 37203 1972
Library, Southern Missionary College, Collegedale, TN 37315 --- 1962
Hunter Library, Serials, Western Carolina University, Collowhee, NC 28723 1975
Serials Dept., Library, Univ. of California, Santa Barbara, CA 93106 --- 1972
Library, Serials Section, Oklahoma State Univ., Stillwater, OK 74074 --- 1963
Serials Dept., University of Illinois Library, Urbana, IL 61801 --- 1956
Serials Dept., Library, Fla. Technological Univ., P.O. Box 25000, Orlando, FL 32816 1971
Dean B. Ellis Library, Arkansas State Univ., State University, AR 72467 --- 1968
Cumberland Gap National Historical Park, P. O. Box 840, Middlesboro, KY 40965 --- 1976

EXCHANGES

Serials Section, University Library, Univ. of Arkansas, Fayetteville, AR --- 72701
Audubon Naturalist Soc., 8940 Jones Mill Rd., Washington, DC --- 20015
Sociedad de Ciencias Naturales, La Salle Biblioteca, Apartado 8150, Caracas, Venezuela
Review Editor, Bird-Banding, Dept. of Science, Rutgers University, New Brunswick, NJ --- 08903
British Trust for Ornithology, Beech Grove, Tring, Hertfordshire, England
Dr. Alfred O. Gross, Editor, Bowdoin College, Brunswick, ME --- 04011
Editor, THE CHAT, Route 3, Box 114-AA, Zebulon, NC --- 27597
Bibliotheque, Station Biologique de la Tour du Valat, Le Sambuc, France, 13200 Arles
Biomedical Library, Medical Center, University of California, Los Angeles, CA 90024
Florida Audubon Society, "The Florida Naturalist", P. O. Drawer 7, Maitland, FL 32751
Commission Administrative du Patrimoine de L'Institut, Royal des Sciences Naturelles de Belgique, Rue Vautier, 31, Bruxelles 4, Belgium

Indiana Audubon Society, Inc., Charles E. Keller, 2505 E. Maynard Dr.,
Indianapolis, IN ---------- 46227
IOWA BIRD LIFE, 235 McClelland Blvd., Davenport, IA ---------- 52803
KENTUCKY WARBLER, Serials Dept., University of Louisville Library, Belknap Campus,
Louisville, KY ---------- 40208
THE KINGBIRD, 20 Parish Rd., Honeoye Falls, NY ---------- 14472
THE LIVING BIRD, Library, Laboratory of Ornithology, Cornell University,
159 Sapsucker Woods Road, Ithaca, NY ---------- 14850
THE LOON, Minnesota Ornithologists Union, Museum of Natural History, University of
Minnesota, Minneapolis, MN ---------- 55455
MARYLAND BIRD LIFE, Maryland Ornithologists Society, Clyburn Mansion, 4915 Green
Springs Ave., Baltimore, MD ---------- 21209
NATURAL HISTORY, Librarian, American Museum of Natural History, New York, NY ------- 10024
THE NEBRASKA BIRD REVIEW, Nebraska Ornithological Union, 101 Morrill Hall,
University of Nebraska State Museum, Lincoln, NE ---------- 68508
Texas Ornithological Society, 4022 Monty, Midland, TX ---------- 79701
THE ORIOLE, Gift & Exchange Section, Acquisitions Div., University of Georgia
Libraries, Athens, GA ---------- 30601
DER ORNITHOLOGISCHE BEOBACHTER, Schweizerische Vogelwarte, CH-6204 Semach Switzerland
THE PASSENGER PIGEON, Editor, 733 Maple St., Chippewa Falls, WI ---------- 54729
THE PROTHONOTARY, Buffalo Ornithological Society, 87 Garrison Road,
Williamsville, NY ---------- 14221
RAVEN, 115 Kennondale Lane, Richmond, VA ---------- 23226
THE REDSTART, Brooks Bird Club, 423 Warwood Ave., Wheeling, WV ---------- 26003
THE RING, International Ornithological Bulletin, Zoological Institute,
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A Species Index To

THE MIGRANT

Volumes 1 – 47
1930 – 1976

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Tennessee Ornithological Society
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Nashville, Tennessee

Introduction

This index consists of three parts: a list of references to all species mentioned in The Migrant presented in taxonomic order (page 1), an alphabetical index to Latin names (page 32), and an alphabetical index to English names (page 35). Prior to this time, an index has never been published to the first five volumes of The Migrant. In the preparation of this index, I have read and indexed Volume I. References to Volumes II through V were taken from index cards that have been maintained for many years by the Editors of The Migrant. To prepare the remainder of this index, I have used the 14 three-year indices which have appeared in The Migrant beginning in 1937. These indices have been consolidated, edited, and rearranged from an alphabetical to a taxonomic sequence. I have placed the references to subspecies under the appropriate species headings rather than as separate entries. In order to save space, I have replaced the years with volume numbers, which are underlined. It is quite easy with practice to look at the volume number and know quickly in which year that volume was published. Simply subtract one(1) from the volume number and add the remaining number to 1930 (the first year of publication). For example, to find in which year volume 37 was published, subtract one from 37 (37-1=36), add the remainder to 1930 (1930+36=1966) to find that volume 37 was published in 1966.

During the course of editing this index, I found many errors. Undoubtedly there are errors remaining, especially in the portions that I have not edited. Common sense will allow one to turn some of the errors into useful references. For example, if the species you are researching is not mentioned on page 27 as indicated in the index, look on the preceding or following page or perhaps pages 17,37,or 72. In a few cases, the wrong year was given for a list of references. There are of course some references which were inserted erroneously. Of more serious consequence are the errors in which useful information was not indexed at all; I found a few of these errors. I would appreciate receiving notice of any errors in this index. Perhaps a list of errata can be published later, or corrections can be made in a second printing if one should be necessary.

Two instances of irregular pagination should be noted. In the June issues of both Volumes I and II, the pages are numbered beginning with one, rather than continuing from the March issues. References in this index are to the corrected page numbers, not the published ones. Researchers should be on the alert for species that are listed more than once on a page in The Migrant. Carefully read each page that is referenced in the index for a particular species. Failure to do so will probably result in the loss of some important information.

NOMENCLATURE AND SEQUENCE OF SPECIES

I have used the nomenclature found in the A.O.U. Checklist of North American Birds, 5th edition (1957) and the 32nd and 33rd supplements to the A.O.U. Checklist (Auk, 90:411 and Auk, 93:875). In a few instances where the species were not covered in the A.O.U. Checklist, I have used Morony, Bock, and Farrand (1975. Reference List of the Birds of the World. New York, Am. Mus. of Nat. Hist. 207 pp.). The sequence of species also follows the A.O.U.

Checklist with a few exceptions which have been necessitated by the changes in the 32nd Supplement to the A.O.U. Checklist. Several of the shorebird genera have been merged causing a rearrangement in the sequence of the two Yellowlegs and all of the "peep" sandpipers. For these birds I have used the sequence given in Morony et al. (ibid). The names of the Henslow's and Le Conte's Sparrows were also changed in the 32nd Supplement. I have reversed the order of these sparrows in order to place them adjacent to the other members of their respective genera, however, this manuever does not necessarily place them in the proper sequence. In defense of the above changes, I can see no justification for not placing the members of the same genus adjacent to one another in a taxonomic list.

I could have made many other changes in the sequence of species, genera, and even families and at the same time remained within the bounds of current taxonomic thinking. However, at this time that would have defeated my purpose which was to produce a useful index. Eventually these other changes will be adopted universally by ornithologists. It was partly due to those anticipated changes and the resultant inconvenience to users of this index, that I have also included the two alphabetical indices.

SUBSPECIES

I have not emphasized the subspecies in this index. Those who are not interested in subspecific information should find it easy to ignore all of the comments and annotations that I have provided. However, for those who want it, I have made this information available through annotations. References to subpsecies are usually indicated by the trinomial, or in cases where there are several, a symbol has been used. References to subspecific identifications that were not based on specimens are generally not annotated in this index, except for a few races that are readily identified in the field. I have not annotated references to those subspecies that were recognized at one time, but which do not appear in the A.O.U. Checklist (1957). Also, I have not annotated references to subspecies when only one subspecies is known from this area. This information is available in the A.O.U. Checklist or in Wetmore (1939. Notes on the Birds of Tennessee. Proc. U.S. National Museum, 86:175-243).

SYNONYMY

Both the English and Latin alphabetical indices contain cross references between obsolete and current names. My aim has not been to give a complete list of synonyms; nor have I been consistent in my treatment of this subject; rather I have included those names that are most likely to cause confusion. I have, however, tried to include all of the more recent name changes which are often overlooked. These cross references should be of the greatest benefit when the user is confronted with English subspecies names in the older volumes of The Migrant. For example, to find out what a Bicknell's Thrush is, turn to the English index and you will find beside Bicknell's Thrush the Latin trinomial *Catharus minimus bicknelli* and a reference to page 20 of the main index. On page 20 using the Latin name you will find that *Catharus minimus* is a Gray-cheeked Thrush, and that there are two references to the subspecies *bicknelli* in the list that follows.

COVERAGE

With the exceptions noted below, I have included all references to all of the approximately 356 species that are discussed in The Migrant. I have edited some useless references from every species, and for 130 species (those marked with an asterisk) I have looked up every reference and omitted those which provided no useful information or information that was presented elsewhere in more detail. For example, a rare bird seen on a Christmas Count might be mentioned on as many as three different pages in the Christmas Count report. It might also be mentioned on two or three pages in The Season reports. Then a Round Table note might be published giving all of the details of the sighting. This would result in six or seven references in the three-year indices. In this index I would have omitted all of those references except the one to the Round Table note. In many cases I was able to eleminate as many as half the original references and in some cases up to 80 per cent. For most species, as I looked up the references, I transcribed the data to index cards which I have filed for future reference. Casual references to birds in book reviews and other articles were omitted.

I also omitted all of the birds mentioned in two papers that concerned areas far removed from Tennessee: "Observations on the Birds of Wake Island" (Migrant, 16:26) and "The Quest of the Trogon" (in Arizona) Migrant, 32:11. References to birds from other areas outside of Tennessee are indexed. In some cases I have included the name of the state along with the reference. I am currently preparing a complete geographical index to The Migrant which will be specific to counties for Tennessee and to states for the area outside of Tennessee.

I omitted the references (Migrant, 31:13 and 50) to the Northern Three-toed Woodpecker (*Picoides tridactylus*) which was accidentially published without the usual editorial scrutiny. Otherwise I have included references to species even though I consider the records doubtful. Alsop (Migrant, 43:57-64) presents a good evaluation of some of these doubtful records. I do not accept, however, the criteria that Alsop (ibid) proposes for accepting sight records of birds. I have knowledge of three species which have been reported from Tennessee, but for which records have not yet appeared in The Migrant: Snowy Plover (*Charadrius alexandrius*), Great Black-backed Gull (*Larus marinus*), and Rufous Hummingbird (*Selasphorus rufus*) specimen.

ACKNOWLEDGEMENTS

I am grateful to the following people who helped me with the tedious task of proof-reading the rough draft: Cathy Duncan, Rita Gilbert, Alice Hammond, Susan Taylor, and especially James M. Harper who donated his time gratis. Credit is due the Tennessee Department of Conservation, the Tennessee Heritage Program and the Nature Conservancy for their support of this project. Many of my colleagues in the Tennessee Ornithological Society helped me with various problems that arose. I especially appreciate the help of Dr. Gary O. Wallace who has been a constant source of advice throughout all phases of the preparation of this index. I owe my deepest debt of gratitude to my sister, Dorris Smith, who typed and helped me proof-read the manuscript from which this index was directly reproduced. Her contribution to this index entitles her to a large measure of credit for its publication.

Nashville, Tennessee
2 June 1977

M. D. Williams

Taxonomic Index to Species

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* Red-throated Loon:*Gavia stellata*. 21:57.28:13,61.29:10,59,69,70.31:15,78.38:36.42:46,92,93.43:24.44:22.45:45.46:47.47:49,89,90.

* Red-necked Grebe:*Podiceps grisegna*. 3:42.26:9.28:10.46:75,76.47:18.

Horned Grebe:*Podiceps auritus*. 3:42.4:15,51.5:14,58,65.6:14,32,37,70.7:11,31.8:7,15,19,29,61.9:12.10:3,74.11:21.12:8,15,72.13:61,71,76.16:59.17:27,69.19:2.20:31.21:15,57.22:13,16,18,66,71.23:1,9.24:77.25:18,49,75,76.26:61.27:17,18,71.28:10,61,64.29:7,10,18,52,67,70.30:11,20,21,24,34,64.31:17,18,30,67,74,78.32:9,29,42,68,73.33:8,17,18,36,67.34:8,9,12,53,72,77,78,81,82.35:14,19,35,40,42,101,103,104,105,111.36:8,9,11,18,19,42,44,62,65,71,87,93,95,97,98,99.37:6,7,9,10,15,20,22,25,36,39,64,80,82,84,85.38:2,18,19,21,22,47,50,55,66,87,93,95,97,100,101.39:20,21,23,42,44,76,91.40:19,45,48,74,75,76,77,89.41:7,21,23,42,83,84.42:7,18,20,37.43:5,11,26,45,48,70,89,103.44:10,22,24,27,45,50,52,54,99.45:11,21,23,25,41,45,64,77,100.46:7,19,21,44,45,47,65,67,71,75,76.47:18,20,35,45,47,49,90.

* Eared Grebe:*Podiceps nigricollis*. 6:93.40:74-77(Arkansas).47:18.

* Western Grebe:*Aechmophorus occidentalis*. 33:36.40:54(Arkansas).45:10,64.47:38.

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* Harcourt's Storm-Petrel:*Oceanodroma castro*. 47:16,20?,23.

* White Pelican:*Pelecanus erythrorhynchos*. 2:23.3:35,36.4:48.5:62.6:38,91.7:98.8:73.9:95.11:76.12:36,58,71.15:55,56.16:33.20:68.22:12.23:1.25:15.26:9,17.29:18.34:71.38:94.39:10.41:21.42:88.44:24.46:66.47:6.

* Brown Pelican:*Pelecanus occidentalis*. 7:38.8:82,87.23:66(Mississippi).

Double-crested Cormorant:*Phalacrocorax auritus*. 2:4,24.3:7,13,16,29,42.4:4,5,13,14,15,47,48.5:8,26,27,28,40,41,42,60,62,64,65.6:7,17,26,37,52,91,92.7:2,3,11.8:7,19,40,41,43,59.9:7,12,46,66,97.10:6,27,59,74,75.11:21,76,103,104,116,117.12:7,24,32,34,71,72,74.13:19,30,35,42,61.14:26,40,41,55,73,75.15:28,77.16:59.17:23,64,69.18:54,57.19:21,66.20:31,34,41,61,68.21:4,25,58,75.22:45,66.23:5,26,31,41,57,59,69.24:13,35,77,81.25:28,49,54,76.26:26,27,61.27:19,31.71.28:9,63,64.29:8,18,30,34,57.30:17,64.31:15.32:29,68.33:8,18.34:53.35:40,101,103,111.36:42,87,95,99.37:25,85.38:31,46,87,91,97.39:20,42,76,91.40:21,48,92.41:21,41,45,83.42:7,8,18,20,43,44,46,69,71,90,93.43:11,22,24,26,52,59,78,89,98,101.44:25,99.45:11,21,23,45,77.46:7,19,21,45,64,69,71.47:18,35,47,74,77,90,99.

* Anhinga:*Anhinga anhinga*. 2:24.4:13,14,15,49.5:26,28,62,65.6:17,91.7:44,67.8:43.10:27,59,60.11:48,76,116.12:26,58,74.13:42.14:41.17:7.18:25.20:42,68.22:2,12.23:41.25:28.26:9,27.28:9.31:67.34:22.41:83.

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Green Heron:*Butorides striatus*. 2:22.3:13.4:8,15,38.5:2,22,28,29,42,50.6:3,22,27,36,49,61,91.7:3,6,34,45,46,49,53,67,68,100.8:22,23,57,60,74,76,86.9:2,30,49,64,67.10:3,27,32,42,43,47,60.11:54,78.12:32,35.13:30,33,44,49.14:27.15:26,28.16:34,44.17:23.18:25.19:5,21,35,72.20:30,34.21:25,58.22:1-8,24,27,65,66.23:5,26,52,55.24:35,56.25:12,21,28,56,64,73,76.26:27,48,58,59,61.27:4,32,49,51,71.28:22,26,60,61.29:18,30,57.30:19,21,33.31:30,39,59,67.32:29,46.33:10,18,28.34:12,22,30,50,53,56,66,72,74.35:39,42,45,61,64,70,104,105.36:10,18,42,62,64,65,66,71,76,77,78,79,80,81,95,98,99,107.37:20,22,24,25,29,36,55,60,64,69,75,82,85,88.38:2,13,31,47,50,52,53,55,95,97,99,100.39:31,34,42,43,44,63,67,75,76,82,89,91.96.40:21,26,35,44,45,48,89.41:36,42,56,57,66,69,84.42:8,11,18,20,37,43,44,47,58,74,79,80,85.43:24,43,45,50,59.44:10,25,45,52,85,86,89,93,99,101,104.45:2,5,40,45,77,102.46:7,13,21,23,25,56,66,67,69.47:4,18,20,23,47,76,77,79,82,85,87,90.

Little Blue Heron:*Florida caerulea*. 2:21,22.3:35,37.4:9,15,36,38,39,48.5:28,40,42,45,59,60,62.6:27,49,51,91.7:44,54,63,66,67,68,70,72,73,74,100.8:7,49,58,60,73,86.9:46,64,67,95.10:3,27,56-58,60,75.11:76,77,115.12:5,26,58.13:49,67.14:52.15:28,55.16:44.18:25,62.19:21,72.20:30,34.21:47,50,51,52.22:1-8,12,20,28,45,47.23:1,5,25,45.24:34,35,60.25:27,28,53,54,55.26:25,26,27,47,51.27:4,32,50,52,67.28:8,22,43,59,60.29:18,30,50,55,56,57.30:64.31:44,48,49.32:29,43,46.33:47,49,51,74.34:53.35:30,31,35,45,54,61,64,65,66,70.36:42,63,68,69,93,95.37:15,20,36,39,53,54,59,60,82.38:31,46,47,50,65,66,97.39:31,34,41,42,43,49,50,51,52,59,65,89,91.40:35,45,68,69,74,75,76,77,89,92.41:36,56,58,66,69,70,72,84,87.42:4,7,8,11,37,50,53,69,85,87,90,93.43:11,22,26,32,45,50,59,67,74,78,98,101.44:8,45,50,52,83,84,89,90,91,92,98,99,101.45:45,55,75,77,100,101,102.46:19,21,56,67,88,89.47:2,3,4,18,20,76,77,82.

Cattle Egret:*Bubulcus ibis*. 32:35.33:27,28,48.34:52,71.35:31,35,39,54,70,123.36:63,68,95.37:15,22,35,36,87.38:46,50,94,95.39:31,41,42,44,49,50,51,52,55,59,63,64,65,88,89,90,91.40:48.41:1,36,58,69,87.42:18,37,44,49,50,51,52,53,67,69,90.43:23,43,49,50,52,59,67,75,78,98,101.44:22,25,45,50,52,83,92,93,98,99,104.45:10,11,23,45,75,77,79,101,102.46:56,64,66,67,88,89.47:2,4,16,17,18,20,45,76,77,82,90,99,101.

Great Egret:*Casmerodius albus*. 2:21,22,24.3:13,27,29,35,37.4:8,13,14,15,36,38,48.5:28,40,41,42,45,60,63.6:17,27,39,49,51,91.7:37,44,54,63,67,70,72,73,99.8:30,43,49,58,59,60,73,80,81,86.9:28,46,64,69,95.10:27,56,57,59,72,75.11:21,26,116.12:26,32,58,71,74.13:30,34,35,41,48,67.14:40,52.15:28,30,55.16:12,44.17:7,23.18:25,27,62.19:21,72.20:15,30,34,42,67,68.21:10,25,47,51,52,53,58.22:1-8,12,18,19,23,24,47,65,66,72.23:5,8,9,26,41,45,55,59,68,69.24:15,35,56,59.25:15,28,54,55.26:26,27,47,49,51,59,61.27:4,18,31,50,52,67,68,69,71.28:7,20,22,45.29:18,30,34,57,58.31:15,44,48.32:68.33:8,13,28,47.34:22,30,50,53.35:30,35,45,54,61,66,70,101,104,111.36:42,63,68,69,71,95,96,98.37:15,20,22,36,53,54,82.38:31,46,47,50,66,68,97.39:4,31,42,44,49,50,51,52,59,65.40:35,44,45,48,68,70,92.41:36,42,45,56,58,70,83,84,87.42:18,20,21,44,46,47,50,52,58,67,71,72,90,93.43:11,23,26,32,45,50,52,59,75,78,101.44:8,22,25,32,45,49,50,52,86,89,90,92,99,101.45:11,14,23,45,55,75,101,102.46:19,21,56,66,67,88,89.47:4,20,23,45,47,77,79,90,101.

Snowy Egret:*Egretta thula*. 2:22.4:14.5:28.7:44,68.8:58,73.9:64,98.10:56,72.11:48.12:26,58.16:44.18:62.19:72.21:25,47,68.22:1-8,17.23:45.24:35,56.25:26,28.26:25,27,47,48,59.27:31,67.29:29,30,50.31:49,58,80.32:29,43.33:47.35:30,45,70.36:68.41:36.42:37,67,71,74,76,87.43:43,49,55,59,67,98.44:30,49,92,98,99,101.45:75,77.46:18,21,66.47:4,74,79.

* Louisiana Heron:*Hydranassa tricolor*. 19:71.23:1.33:73.39:15.41:87.42:67.43:50.44:86.46:18.

Black-crowned Night Heron:*Nycticorax nycticorax*. 3:13,30.4:13,14,15,21.5:28,42.6:12,27,34,38,49,92.7:37,38,43,45,100.8:24,43,76.9:6,7.10:3,4,27,59,60.11:104,116.12:24,26,74.13:42.14:12,19,37.15:34,35.16:34,47.18:12,25.19:12.20:34.21:12,58.22:1-8,19,24,46,47.23:11,26,41,53.24:15,35,56,74.25:12,21,27,28,34,55,64,73,75,76.26:25,27,49,58,61.27:4,17,18,31,32,71.28:10,60,64.29:18,30,34,58,67,70.30:2,9,21,26,33,64.31:30,48,67,74.32:29,68.33:8,17,18,28,63,67.34:30,82.35:30,35,40,45,54,61,63.36:18,42,62,63,71,84,87.37:20,22,36,74,80,88.38:13,31,36,47,86,87,91.39:5,31,42,44,49,50,52,59,63,65,91.40:35,45,48,68,70,89.41:36,69,70,84,87.42:37,44,50,93.43:45,52,59,78,101.44:45,52,58,86,89,91,92,98,101.45:11,21,23,45,75,77,101,102,104.46:7,18,21,56,64,66,67,87,88,89.47:4,17,20,35,47,82,85,90,98,99,101.

* Yellow-crowned Night Heron:*Nyctanassa violacea*. 4:20.5:28,29,40,62.6:27,34,39,53,91.7:67.8:16,42.10:27.12:24,34,58,60.13:35,42,69.15:30.16:42.21:25.22:1-8,47.23:1,9.24:35,56.25:21,27,28,54,55.26:18,27,47,51.27:4,32,50.28:22,45.29:18,30,56.31:30.32:29,42,44.33:8,28,48,51.34:30,51,52,53,73.35:35,39,41,45,61,64.36:62,63,64,69,71,95.37:20,22,36,54,59.38:31,46,50,52,66,95,97.39:12,31,42,44,59,65,91.40:33,35,45,48,68,89.41:36,45,56,57,69,70,87.42:19,37,47,67,85,93.43:45,50,55,75,78,98,99,101.44:22,27,45,52,54,84,86,99,101.45:45,76,77,79,101,102.46:21,23,56,65,66,67,69,88,89.47:4,18,20,45,77,79,82,90,99,101.

* Least Bittern:*Ixobrychus exilis*. 2:11.3:10,13,28,30.4:20,39,47.5:26,29,42,60.6:23,24,27,34,49,52,91.7:3,14,38,43,45,67,73.8:21,31,37,59,87.9:28,46,67.10:27,31,58,59.12:26,74.14:37,38,50.15:7,21.20:33,34.21:25,52.22:24,45.23:26,66.25:22,28,54.26:27,48.29:18,30.30:21,24.32:30,42,43,44.33:59.34:20,22,28,30,62.35:45.36:63,68,71.37:27,29.38:2,3,31,50,66,68.39:31,34,44,53-58,63,65,91.40:48,70.41:36,45,59,69,70.42:35,37,46,67,69,71,74,92,93.43:50,52,75,78.44:52,86,101,104.45:77,102.46:21,26,56,66,67,88,89.47:76,77,82,90,99.

* American Bittern:*Botaurus lentiginosus*. 3:13,27.4:15,21.5:29,65.6:17,18,22,24,27,34,39,49.7:3,14,37,43,47.8:40,41.9:7.10.27,31,32,75.11:103,113.12:26,36.15:21,32.17:27.18:25.19:21,35.20:11,12,34.21:4,25,58,75,77.22:24,66.23:2,8,9,26.24:15,35.25:22,28,54,55.26:27.27:4,32,53.28:22.29:18,30 30:21.31:74.32:30,42,43.33:2,7,12,28,48.34:8,30,66,71.35:35,42,45,96,104,105.36:63,92.37:20,22,25,27,29,35,36,82.38:31,46,47,50,55,66,97.39:20,31,34,44,47,65,92.40:35,45,48,70.41:36,42,45,70,87.42:20,37,46,69,71,90,93.43:24,45,50,52,55,75,103.44:22,25,45,50,52,86,99,101.45:21,23,45,76,77.46:19,21,45,56,66,67,88.47:45,47,75,76,77,90,99.

* Wood Stork:*Mycteria americana*. 2:22.3:35.4:36,47,48,50.5:42,60,62.6:91.7:67.8:41,50,58,73.9:1,64,95.10:56,57.12:58.15:28,55,76.16:44,65.18:62.20:69.22:45.23:2.25:15.26:43,47.27:67.31:44.34:71.37:82.46:79.

* Glossy Ibis:*Plegadis falcinellus*. 3:28.12:58.16:44.28:26.39:15,49,50,51,92.40:53.42:37,40,71,87.44:92.45:21.47:4,20,99.

* White-faced Ibis:*Plegadis chihi*. 12:3.16:44.39:92.43:61.

* White Ibis:*Eudocimus albus*. 6:68.20:50.23:2,46.27:67.31:58.33:51.42:58,72.44:86,101.46:21.

* Roseate Spoonbill:*Ajaia ajaja*. 43:67.

* Mute Swan:*Cygnus olor*. 41:45,59.43:61.

* Whistling Swan:*Olor columbianus*. 5:41.6:21,27.9:97.14:80.30:56.35:16.39:13,16,20.41:21,42.42:33.43:23,24,26.44:25,52.45:11,21,23,76,93.46:45.47:45,47.

* Trumpeter Swan:*Olor buccinator*. 11:61.43:61.

* Hawaiian Goose:*Branta sandvicensis*. 45:18 (captive birds).

Canada Goose:*Branta canadensis*(Those page numbers followed by "H" refer also to the subspecies, *B. c. hutchinsii*). 3:7,42,48.4:5,48.5:8.6:3,28,49,78,79,80,91,94. 7:11,20,31,46,88,98,99.8:7,19,61,74,80.9:7.10:4,6,12,75.11:21,27,104.12:7,18.13:19,44,61,63,71.14:73,75.15:2,69.16:47,59,60.18:57.19:2,66,73.20:19,31,61.21:1-3,4,14,15,52,58.22:13,18,66.23:11,40,57,59,69.24:13,15,18,77,80,81.25:28,75,76.26:49,59,61.27:4,18,50,69,71.28:8,9,10,11,22,32,39,60,64.

29:8,18,70.30:11,16,21,25,33,54,64.31:18,30,47,52,68,71H,74H,80.32:5,9,30,35,36,68H.33:8,12,18,20,28,49,67H.34:8,11,12,30,35,50,72,73,75,76,77,78,82H,89,93,95.35:40,45,101,103,104,111H,115.36:7,8,9,18,19,21,42,64,65,71,87,91,92,93,95,96,97,99.37:2,7,20,22,36,64,67,68,80,82.38:19,21,22,31,46,47,50,52,87,94,95,97,100,101.39:16,20,21,28,31,42,44,65,67,76,85,90,92,96.40:18,19,21,35,45,48,54,61,62,68,70,89,92.41:7,21,24,36,42,46,60,61,69,84,87.42:8,19,20,37,69,91,94.43:11,18,23,24,26,44,45,52,59,70,75,76,78,101.44:10,17,21,25,45,54,56,59,99,102.45:11,21,23,45,64.46:7,21,45,56.47:20,23,35,49,90.

* Brant:*Branta bernicla*. 26:9.30:54.37:12(*B. b. nigricans*).40:61.45:93.46:21,45.

* Barnacle Goose:*Branta leucopsis*. 40:62.41:60.47:45.

* White-fronted Goose:*Anser albifrons*. 16:10.32:35.33:20.39:44.40:61.41:21,42,45.42:19.43:23,50.44:25,102.46:6,7,21,45,71.47:45.

Snow Goose:*Chen caerulescens*(Those page numbers followed by a "W" refer to the white morph only; those followed by a "B" refer only to the dark morph, "Blue Goose," the remaining numbers refer to both color morphs). 2:16B.3:7W.4:48,49.5:26B,38,65B,66W,67.6:49B,80,91.7:23B,37B,48W,67B,87W,88,103B.8:19W,36W,73,74,76W,80.9:18B,14W,28,29W,96B.10:74.11:113B.12:18B,71.13:54,61,63W,67,71W.14:62B,73.15:18B.16:10.18:62.19:72W,73W.20:61,64,69B.21:4,13,52B,68.22:66,71,72.23:40,57,69.24:77W.25:13,17B,76W.26:10B,61B.27:4B,17,18W.28:9B,10,11B,61B.29:8W,18,52W.30:55B,56W,62B,64B.31:29B,30B,43,44B,68,71W,74.32:5B,7B,8B,9B,30B,41W,68B.33:8B,12,13B,28B,45,46B,67W.34:8B,12B,53B,82W.35:31W,39W,44W,45W,101,111,115W.36:21,42,87,92W,95,96W.37:7W,36W,64W,68W,80B,82,83W.38:19,21W,30B,31B,46,87B,94,95,97,99B.39:16B,20,21,31,34B,42B,43W,44,76,82B,90B,92B.40:19B,21W,35B,54,61,75B,76B,77B,89B,92B.41:7,10B,21B,42,45B,84,87.42:8,11B,19,91W,92.43:11,23,24B,26,50B,99B,101.44:10,13,25,59B,99W,100,102B.45:11,14,15,21,23,45,46,93.46:7,19W,21,45.47:18W,35,38B,39B,47,89B,90B.

* Egyptian Goose:*Alopochen aegyptiacus*. 35:115.36:87,92,97.37:36.38:21.39:31,76.44:10.

* Toulouse Goose: 34:35(a domesticated goose).

* Fulvous Whistling-Duck:*Dendrocygna bicolor*. 22:51.23:56.36:52,104.38:60.39:16.42:19.43:52.47:76.

Mallard:*Anas platyrhynchos*. 2:4,24.3:7,42,48.4:5,26,48,51.5:6,8,11,14,37,38,58,64,65.6:3,7,12,28,91,92.7:11,19,31,48,67,99,100.8:7,19,28,74.9:7,12,15,95.10:3,6,7,14,74.11:6,7,21,27,103,104.12:7,9,15,71,72.13:16,19,53,61,63,71,76.14:13,73.15:30,69,71.16:34,59.17:64,69.18:14,54,57.19:2,3,66.20:31,34,61.21:15,58,75.22:18,19,66.23:14,39,57,58,59,69,72.24:13,16,17,35,77,80,81.25:18,28,74,75,76.26:27,59,61.27:4,19,32,68,69,71.28:9,10,11,14,22,32,60,64.29:10,19,53,58,70.30:8,11,16,21,25,33,58,64.31:18,30,39,44,50,54,62,63,64,68,74.32:7,9,30,68.33:8,18,28,51,67.34:9,11,12,22,30,37,53,77,78,82.35:14,17,18,19,31,42,45,103,104,105,111.36:7,9,10,12,18,21,42,43,63,64,66,68,71,87,93,97,98,99.37:7,9,10,22,25,27,29,36,54,56,64,80,82,85.38:2,18,19,21,22,30,31,46,47,50,53,55,66,87,94,95,97,100,101.39:4,16,20,21,22,23,31,42,44,47,64,65,76,90.40:19,21,24,35,45,48,51,54,75,76,77,89.41:7,21,24,36,42,87.42:8,19,20,37.43:11,28,43,44,45,52,70,76,78.44:10,17,22,25,45,50,52,86.45:2,5,11,23,45,102.46:7,11,56,67,80.47:4,35,82,90.

Black Duck:*Anas rubripes*. 2:4.3:7,42,48.4:5,51.5:8,38,64,65.6:7,12,14,28,91,92.7:11,31,48,100.8:7,19,28,36,74.9:7,67,95.10:6,14,74.11:6,7,21,27,104,113.12:7,9,17,18,71,72.13:16,19,61.14:73.15:69.16:59.17:64,69.18:25,54,57.19:2,3,67.20:31 33,34,61.21:4,15,58,75.22:18,66.23:2,14,57,59,69.24:13,17,77.25:18,75,76.26:61.27:4,71.28:9,10,11,14,22,60,64.29:10,19,30,53,70.30:11,16,58,64.31:18,30,44,54,68,72,74.32:7,9,30,68.33:8,18,49,67.34:9,11,12,30,53,77,78,82.35:14,17,18,19,42,45,101,103,104,105,111.36:9,11,12,18,42,52,63,65,68,87,93,99.37:7,9,10,22,25,36,54,64,82,84,85.38:2,18,19,21,22,31,46,47,50,53,87,94,95,97,100,101.39:21,23,31,42,44,47,65,76,90,92.40:19,21,35,45,48,51,89,93.41:7,21,24,36,42,46,70,87.42:8,19,20,21,37,48,69,92,94,95.43:11,18,28,45,52,70,76,78,99,101,103.44:10,22,25,45,49,52.45:11,21,23,25,76,77,102.46:7,19,24,56.47:20,23,35,90,99.

Gadwall:*Anas strepera*. 4:5,51.5:8,14,26,64,65.6:28,92.7:11,31.8:15,19,23,28,74.9:7,12.10:6.11:21.12:8,17.13:19,53,61.14:73.15:66,69.16:12,59.18:57.19:2,3,67.20:31,61,68.21:58,75.23:12,69,72.24:14,77.25:28,75,76.26:27,59,61.27:4,71.28:9,14,61,63,64.29:19,57,70.30:11,16,21,64.31:30,68,74.32:9,30,68.33:9,18,67.34:12,50,78,82.35:14,19,35,37,42,45,103,104,105,111.36:7,9,12,18,42,63,71,81,91,95,98,99.37:7,10,20,22,25,36,64,80,82,85.38:19,21,22,31,46,47,50,55,87,95,97,101.39:20,21,23,43,44,76,89,90,92.40:18,19,21,48,51,54,75,76,77,89.41:7,36,42,46,69,84.42:8,19,20,21,92,94,95.43:11,18,24,26,50,52,70,101.44:10,17,22,25,45,50,100.45:11,25,76.46:7,45,47,67.47:20,35,40,49,76,77,90,101.

Pintail:*Anas acuta*. 3:42,48.4:48,51.5:8,11,14,38,65.6:12,28,49,91,92.7:11,19.8:7,19,74.9:12,95,97.10:3,58.11:21,27,61.12:7,15,17.13:19,53,61,67.14:12,13,67,73.17:69.18:58.19:2,3,67.20:31,61.21:4,15,58.22:19,66.23:14,39,57,59,69.24:13,16,77.25:75,76.26:59,61.27:4,32,71.28:9,10,11,14,61,63,64.29:19,53,70.30:16,64.31.18,44,68,74.32:9,68.33:9,12,18,49,67.34:13,53,72,79,82.35:14,35,103,111.36:7,9,42,63,87,91,95,99.37:7,10,22,64,80,82,85.38:2,19,46,50,87,94,95,97,102.39:20,31,42,44,76,90,92.40:19,21,48,51,54,75,76,77.41:7,21,42,46,84.42:8,19,20,21,94.43:11,16,23,26,45,70,101.44:10,25.45:11,14,21,25.46:7,21,45.47:18,20,35,39,49,90.

Green-winged Teal:*Anas crecca*. 3:42,48.4:51.5:8,14,38,65.6:28,91,92.7:11,31,73.8:7,19,28,41,74.9:7.10:3,6,74.11:21,22,61,104.12:7,15,72.13:53.14:73.15:69.18:57.19:2,3.20:31,61.21:4,82.22:66.23:59,69.24:77.25:76.26:27,48,61.27:4,71.28:9,10,14,22,64.29:9,19,56,70.30:9,16,64.31:18,39,68,74.32:68.33:9,18,48,67.34:82,89.35:37,42,103,105,111.36:7,9,42,63,65,68,87,95,98.37:6,7,22,64,68,80,82,85.38:2,19,46,50,53,55,66,87,94,95,97,102.39:21,31,34,42,44,76,89.40:19,22,35,48,51,75,76,77.41:7,21,42,84.42:8,19,20,91,92.43:11,18,23,26,28,50,52.44:10,27,31.45:11,23,25,79,94.46:7,19,21,24,45,47,66,67.47:20,35,49,77,79,90.

Blue-winged Teal:*Anas discors*. 3:13,42,48.4:22,39,48.5:8,10,26,38,45,62,64.6:12,17,22,28,34,37,52,91.7:11,31,43,48,67,70,72,73,98,102.8:7,22,23,28,41,58,74.9:64,95.10:6,32,57,74.11:21,27,78,104,112.12:8,24,26,36,38,58,72.13:19,53,61,67,76.14:12,27,41,52.15:21,30,32,55,66.16:12,34,44.17:23,27.18:25,57,62.19:67.20:31,34.21:4,25,58.22:24,66.23:26,52,55,59,69.24:16,17,35,60,77.25:19,22,27,28,33,53,76.26:27,47,48,61.27:4,19,32,51,52,67,68.28:9,42,60,61.29:19,30,53,54,

56,57,59.30:9,11,21,31,37,38,64.31:18,30,44,54,63,64,68,72,74.32:30,42,68.33:9,15,28,49,50,51,55,67.34:10,11,13,30,53,72,79.35:37,39,40,42,45,63,64,65,101,105,111.36:18,42,52,63,64,65,66,67,68,71,92,95,99.37:22,25,27,29,36,53,54,56,64,80,83,85.38:2,19,31,46,47,50,52,53,55,66,87,94,95,97,100.39:31,34,42,44,64,65,76,89,90,92.40:35,45,48,51,75,76,77,78,89.41:36,41,42,69,84.42:8,20,37,43,67,74,87,91,92,94.43:11,24,26,43,45,50,52,67,75,76,78,99,103.44:14,45,50,83,84,86,102,104.45:11,45,47,94,101,102.46:7,21,24,26,56,88,89.47:6,20,35,41,45,47,49,77,82,90,99,101.

* Cinnamon Teal:*Anas cyanoptera*. 43:67.45:94.

* European Wigeon:*Anas penelope*. 15:14.38:53(Virginia).

American Wigeon:*Anas americana*. 3:37.4:5,51.5:11,38,64.6:28,39,52.7:31,48.8:7,15,19,23,28,74.9:12.10:4,6.11:21,27,104.12:7,15,71.13:61,71.14:13.15:35,69.18:57.19:2,3,67.20:31.34,68.21:4,15,58,82.22:18,19,24,66.23:13,26,59,69.24:17,35,77.25:18,28,75,76.26:27,61.27:19,52,71.28:14,22,46,60,61,64.29:19,53,57,70.30:11,16,21,33,64.31:14,18,30,68,74.32:30,68.33:9,12,18,28,49,67.34:13,30,37,50,53,76,78,82.35:14,17,19,35,37,40,42,101,103,104,105,111.36:7,8,9,11,12,17,18,42,52,63,65,71,87,95,98,99.37:7,10,20,22,25,36,40,64,80,83,84.38:19,21,22,31,46,47,50,53,55,87,94,95,97,100,102.39:20,21,23,31,42,44,63,65,76,89,90,92.40:18,19,22,45,48,51,54,75,76,77,89.41:7,21,42,46,84.42:8,19,20,21,37,91,95.43:11,24,26,28,52,70,76,99,103.44:10,17,21,25,30,45,49,50,100,104.45:11,21,45,102.46:7,24,56,89.47:20,35,47,77,79.

Northern Shoveler:*Anas clypeata*. 3:42,48.5:26,38,58.6:12,14,28,34,37,39,49,92.7:31,37.8:15,19,74.9:7.10:6.11:21.12:15,36,53,61.15:35,58,69.16:64.17:27,64.18:57.19:67.20:31,61.21:5,13,58.22:45,66.23:39,52,69.24:14,16,35,77.25:22,76.26:27,61.27:4,19,51,72.28:10,13,61.29:19,53,57,70.30:16,33,64.31:18,68,74.32:30,68.33:9,15,18,28,49,67.34:13,30,79,82,89.35:111.36:7,8,17,18,42,63,65,71,87,95,97.37:6,7,20,22,25,64,80,83.38:2,18,19,31,46,48,50,55,68,87,94,95,97,100,102.39:20,21,31,42,44,76,89.40:18,22,35,48,54,55,75,76,77,78,89,92.41:7,22,36,42,46,84,89.42:8,19,21,37,69,91,92.43:11,26,43,45,52,55,70,98,99,101,103.44:10,25,27,30,32,45,49,52,54,104.45:11,23,79,94.46:7,45,70.47:20,23,35,49,77,79,90.

Wood Duck:*Aix sponsa*.3:7,13.4:48.5:8,38,40,42,59,64,65.6:7,18,22,28,49,51,71,91.7:11,47,54,67,70,103.8:7,18,50,58,60,74.9:7,14,46,64,95,97.10:6,12,27,28,41,58,60,61,74.11:21,22,27,54,104.12:8,24,32,35,58,71.13:32,34,53,61.14:51,73.15:21,55.16:12,59.17:21,23.18:25.19:5,67.20:31,34,61.21:24,50,51,58.22:19,24,45,66.23:5,26,53,69.24:35,56,77.25:18,22,28,56,76.26:26,27,48,49,60,61.27:4,19,30,32.28:9,14,19,21,22,43,61.29:10,19,30,57,59.30:11,21,58,64.31:18,30,54,68,72,74,80.32:6,9,68.33:17,18,28,49,55,65,67,73.34:13,22,30,75,76,79,82,88.35:37,42,45,103,104,105,111.36:7,9,42,64,66,67,68,69,71,87,92,95,97,99.37:7,20,22,24,25,36,40,53,54,56,64,83,84,85.38:19,22,31,46,48,52,53,55,66,67,68,87,94,97,102.39:4,5,31,34,42,47,64,67,76,81,90,92.40:14,22,35,45,51,75,76,77,89,92.41:7,22,36,42,46,56,69,89.42:8,19,37,44,58,69,74,85,94.43:5,11,18,43,45,52,56,70,85,88,98,101,103.44:8,10,13,14,43,45,50,102.45:2,11,40,41,45,76.46:7,21,45,47,56,67,78,80.47:4,20,35,82,84,85,90.

Redhead:*Aythya americana*. 3:42.4:51.5:37,58.6:29.8:19,28,74.11:103.13:19,53,61.14:73.19:2,67.20:31.21:13,15,59.22:15,18,65,66,71.23:26,69.24:17.25:19,76.26:61.27:30,32,72.28:10,13,60,64.29:8,19,53,57,70.30:9,11,64.31:14,18,29,30,74.32:5,9,68.33:9,17,18,28,49,64,65,67.34:13,30,53,72,79,81,82.35:14,19,35,42,45,101,103,105,108,111.36:7,8,9,10,11,12,18,42,63,65,68,71,87,99.37:7,10,20,22,25,64,83.38:18,19,22,46,48,55,86,87,94,95,97,102.39:20,21,23,44,76,89.40:20,22,44,45,48,75,76,77,89.41:7,22,36,42,46.42:8,19,20,37,44.43:11,24,26,28,70.44:10,21,25,50,52,54.45:11,25,45.46:7,10,19,21,47,67.47:35,41,47,90.

Ring-necked Duck:*Aythya collaris*. 2:4.3:7,42,48.4:5,15,51.5:8,11,14,37,58,65.6:7,12,14,29,37,92.7:11,19,31,99.8:7,19,28,74.9:7,12,13.10:5,6,9,13,32,74.11:6,21,27.12:7,9,38.13:16,19,53,61,71.14:13,73.15:69.16:12,59.17:64,69.18:54,57.19:2,67.20:31,61,68.21:15,25,59,75,81,82.22:18,66.23:12,14,26,59,69,72.24:17,35,77.25:19,75,77.26:27,59,61.27:4,19,30,32,72.28:9,22,43,46,60,61,64.29:10,19,28,30,53,70.30:16,21,33,64.31:14,18,30,68,74.32:9,30,43,68.33:9,17,18,28,67.34:30,53,79,82.35:14,17,19,37,40,41,42,45,61,101,103,104,105,108,111.36:9,12,18,42,63,65,71,87,95,99.37:6,7,10,20,22,25,36,64,80,85.38:2,18,19,21,22,31,46,48,50,53,55,87,94,95,97,102.39:20,21,23,31,44,47,65,76,89,90,92.40:20,22,45,48,51,54,75,76,77,78,89,93.41:7,22,24,36,42,46,84,89.42:8,19,21,37,69,92,94,95.43:5,11,45,76,80,101,103.44:10,14,21,22,27,45,50,54,99,104.45:11,45.46:7,24,45,56,70,88.47:23,35,76,79,90,99.

Canvasback:*Aythya valisineria*. 3:42.4:5,51.5:8,14,26,37.6:7,18,29,92.7:11,19,24.8:7,28.9:7,12,13.10:4,6.11:6,21,27,103.12:7,38.13:19,53,61,71.14:73.16:59.17:64,69.18:12.19:2,67,70.20:31,61.21:15,59,75.22:15,19,66,69.24:14,15,17,77.25:77.26:59,61.27:57,71,72.28:60,63,64.29:10,19,53,70.30:11,16,33,64.31:12,14,17,18,68,74.32:9,29,30,68.33:9,18,48,49,67.34:13,72,77,79,82,89.35:14,19,40,42,101,103,111.36:7,8,9,12,18,42,63,66,87,94,95,99.37:6,7,9,10,20,64,80.38:18,19,48,50,87,94,97.39:20,21,23,44,47,76,89.40:20,22,45,48,75,76,77.41:7,22,42,46.42:8,19,22.43:11,16,26,70.44:10,21,25,27,45,50,52,54.45:11,21,23,77.46:7,10,45,67.47:14,35,41,47,49,76,90,99.

Greater Scaup:*Aythya marila*. 6:49.8:23.21:59.26:10,58,59,61.28:10,13,61,65,67.29:10,19.31:50,68,71,72,74,80.32:5,42,68.33:9,13,27,28,48,55.34:79,81,82.35:17,42.36:8,42,65,66,87.37:7.38:19,31,36,43,87,91,97.39:20,21,44,75,76,81.40:22,48,62.41:7,35,36,45.42:8,20,36,37,46.43:5,11,24,26,28,55,72.44:10,16,21,25,52.45:23,25,77.46:7,45,67.47:34,35,47,77,90,101.

Lesser Scaup:*Aythya affinis*. 2:4.3:7,12,13,27,37,42,48.4:5,15,48,51.5:8,11,14,26,37,38,58,60,65.6:7,12,14,17,29,37,91,92.7:11,19,24,31,48,99.8:7,17,19,86.9:7,12,13,64,95,96.10:3,6,14,29,32,74.11:6,21,27,103.12:7,36,38.13:16,19,53,61,71.14:13,73.15:69.16:12,34,59.17:23,64,69.18:54.19:2,67.20:31,34,61,68.21:5,14,25,59,75,81,82.22:18,19,24,66.23:12,13,26,39,69.24:13,14,16,17,34,35,77.25:18,28,74,77.26:27,43,59,61.27:4,32,72.28:10,11,12,22,60,61,65.29:19,30,53,57,70.30:11,16,21,25,33,37,64.31:14,18,30,46,50,54,68,74.32:9,30,68.33:9,17,28,55,67.34:9,13,22,30,37,50,53,76,77,79,82.35:14,19,35,37,39,40,45,66,101,103,104,105,111.36:8,9,11,12,17,18,42,68,69,71,87,92,93,95,98,99.37:6,7,9,10,15,20,22,24,25,36,56,64,80,83,84.38:19,22,31,42,43,46,48,50,53,55,66,87,94,95,97,100,102.39:20,21,23,31,42,44,65,67,76,81,92,96.40:20,22,24,35,45,48,51,70,75,76,77,78,89,93.41:7,22,24,36,41,42,46,70,84,89.42:8,19,37.43:11,28,45,52,76,99,101.44:10,22,45,50.45:11,45.46:7,21,56,87.47:34,35,47,74,77,79,90.

Common Goldeneye:*Bucephala clangula.* 3:7, 42.4:5,48,51.5:8,14,37,38,58,65.6:7,14, 29,37,49.7:11,24.8:7.9:7,12.10:6,31,32, 74.11:6,7,21,27,104.12:7,15.13:16.16: 59.17:21,64.18:25,33,57.19:2,67.20:31, 61.21:15,59,75.22:19,66.23:69,73.24:77. 25:18,77.26:61.27:72.28:61.29:8,10,19, 70.30:9,11,16,64.31:14,15,18,68,74.32: 5,9,68.33:9,18,49,67.34:13,37,53,72,77, 79,81,82.35:14,17,19,36,42,45,103,105, 111.36:8,9,11,12,18,42,63,65,69,71,84, 87,91,95,99.37:6,7,9,10,25,56,64,80,85. 38:18,19,21,22,31,46,48,50,55,87,94,95, 98,100,102.39:20,21,23,42,45,47,76,81, 92.40:18,20,22,24,45,48,51.41:7,22,24, 36,42,46,83.42:8,11,19,20,44,71.43:11, 16,23,24,26,45.44:10,25,27,54.45:11,21, 23,25,40.46:7,11,45,56.47:35.

* Barrow's Goldeneye:*Bucephala islandica.* 11:5.

Bufflehead:*Bucephala albeola.* 4:5,26,51.5: 8,14,26,37,65.6:7,14,29.7:11,37.8:15, 28.9:12,97.10:6,32,33,74.11:21,27.12:7. 13:19,53,61.14:13,73.16:59.17:69.18:58. 19:2,67.20:31.21:13,15,59,75.22:19,66. 23:2,13,59,69.24:13,17,77.25:18,28,77. 26:61.27:4,72.28:61,65.29:19,53,57,70. 30:9,16,21,33,64.31:18,68,74.32:9,68. 33:9,18,22,48,67,76.34:13,53,71,72,77, 79,81,82.35:14,17,18,19,36,37,40,41,42, 45,101,103,104,105,112.36:7,8,9,11,12, 18,42,63,65,66,71,87,93,95,98,99.37:8, 9,10,20,22,24,25,36,56,64,80,83,85.38: 18,19,21,22,31,46,48,50,53,55,87,94,95, 98,100,102.39:20,21,23,31,42,45,47,65, 67,76,92.40:18,20,22,24,35,45,48,51,54, 75,76,77,93.41:7,22,24,36,42,46,68,72, 89.42:8,19,20,22,37,44,72.43:5,11,26, 28,45,50,52,70,78,80,103.44:8,10,22,25, 27,45,50,52,54,104.45:11,23,40,45,63, 76,79,104.46:7,24,45,56,66,70,91.47:23, 35,47,90,102.

Oldsquaw:*Clangula hyemalis.* 1:17.2:4.3:42. 4:21.6:29.9:6,7.10:6,13.11:21,103.14: 73,75.17:26.19:70.22:13,18,19,28.23:2, 10.25:16,18.26:10.27:77,81.29:19,50,53. 30:33.31:45,75,78.32:5,7,9,10,42.33:9, 13,15,18,48.34:13,79.35:14,16,19,42.36: 7,42,65,87.37:8,9.38:18,19,21,48.39:21, 23,45.40:48,62,78.41:5,7,10,22,42.42:5, 8,11,19,43,46.43:5,14,23,26,50,70.44: 15,22,25,52.45:10,11,21,23,25,41.46:44, 47,71.47:16,18,35,39,44,45,46,47,49.

* King Eider:*Somateria spectabilis.*47:14.

* White-winged Scoter:*Melanitta deglandi.* 6: 29.20:68.25:17.26:10.27:9,10,19.35:42. 37:10.38:19,50.39:20,21,23,45.40:22,51, 78.41:11,22,42,45.42:5,20.43:26,99.46: 71.47:35,39,47,49.

* Surf Scoter:*Melanitta perspicillata.* 22: 33.27:57,78.32:17.34:9.38:16.40:20,78. 42:19.43:26.45:21,23.46:47,71,79.47:18, 35,39,40,46,47,49.

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Black Vulture:*Coragyps atratus.* 1:15.2:1,2, 4,5,14.3:7,13,40,42.4:4,5,15,44.5:8,28, 30,50,62,65.6:7,17,72.7:3,11,18,35,47.8: 7,31,39,59.9:7,12,16,23.10:3,5,6,8,9,27, 51,60,61.11:1,21,23,33,55,61,77.12:7,9, 15,18,32,72,73,74.13:16,19,42,45,61,68, 72,76.14:13,41,73,75.15:21,28,33,69,71, 78.16:34,58,59.17:23,64,65,69.18:4,5,6, 22,25,54,57,58.19:5,8,21,35,67.20:30,31, 33,34,42,61.21:25,59,72,75.22:24,29,66. 23:6,7,10,27,69.24:14,29,30,36,76,77.25: 17,28,77.26:28,61.27:4,32,72.28:22,45, 56,65.29:19,30,57,70.30:16,21,26,61,65. 31:2,3,7,17,30,35,75.32:10,17,30,66,69.

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* Swallow-tailed Kite:*Elanoides forficatus.* 1:3.4:51.22:41.36:58.39:85.

* Mississippi Kite:*Ictinia mississippiensis.* 3:36.4:36.5:14,27,28.6:34,53.7:68.8:45. 9:28,64.10:31,58.11:48,79.12:32,38,58. 13:43,44.15:33,56.16:45.17:23.18:25.19: 21.20:57.21:25,50.22:29,45.23:27.24:36. 25:28.27:67,75.28:22,42.29:6.30:21,36. 31:30,44.32:11,30,41.34:3,6,30.38:31. 39:84,89.40:35,88.41:36,56.42:68.43:75, 98.44:45,50,84,99.45:45,101.46:56.47:3, 4,17,90,99.

* Goshawk:*Accipiter gentilis.* 8:85.11:1,18, 19.12:61.13:27.16:63.21:59.24:69.34:40, 91.35:14,105,106.36:8.37:2.40:87.42:72. 43:37.44:10,23,25,51,52,54.45:65,66.47: 23,50,79,93.

Sharp-shinned Hawk:*Accipiter striatus.* 2: 3,5,11,14.3:13,42,49.4:9,15,26,47,48.5: 8,29.6:7,36,49.7:3,47,57,58,84.8:7.9:2, 7,12,29.10:3,6,33,69.11:21,22,55.12:4, 9,17,71,75.13:16,19,23,61,71,74,76.14: 39,40,50,53,60,73.15:22,43,78.16:47,59. 17:23,63,64.18:25,54.19:35,67.20:29,30, 34,61.21:10,11,12,25,59,72,75.22:24,29, 46,53,66,71.23:52,62,69.24:14,33,36,56, 69,77.25:16,69,74,77.26:28,38,58,61.27: 4,11,15,32,72,80.28:3,22,65.29:4,5,19, 30,58,64,70.30:1,2,3,4,21,63.31:6,8,9, 30,46,73,75.32:5,15,21,24,26,27,30,60, 62,63,69.33:28.34:1,4,5,79,83.35:10,26, 40,45,105,112.36:1,2,3,4,5,42,65,71,88. 37:2,8,23,35,36,64,83.38:6,20,31,55,87, 94,98,100,102.39:21,27,29,31,45,47,63, 65,76,84,89,92,96.40:18,22,29,31,44,45, 48,68,88.41:7,14,16,17,22,24,42,46,71, 73,84,87,89.42:1,2,3,8,21,37,44,74,76. 43:11,23,26,28,35,36,37,45,103.44:10, 25,34,35,45,52,78,86,88,102,104.45:2, 11,21,23,25,33,65,66,67,77,79,102.46: 7,10,14,19,22,44,45,48,53,54,56,66,67, 70,71,89,91.47:18,20,23,25,26,27,35,39, 45,46,47,50,76,77,79,82,90,100,101,102.

Cooper's Hawk:*Accipiter cooperii.* 2:3,5,6. 3:4,6,7,13,42,48,49.4:5,15,22,26,47,49. 5:2,8,13,27,38,50,65.6:7,36,49,53,72, 73.7:11,57,58,84.8:7,17,25,74.9:7,16. 10:3,5,6,33,43,69.11:21,23,55.12:4,7,9, 32,35,75.13:16,19,42,45,61,72,74,76.14: 19,39,40,57,60,73.15:16,18,22,28,69,74, 77,78.16:33,34,47,59,63.17:23,27,64.18: 26,54.19:5,11,12,21,24,36,67.20:29,30, 34,61.21:5,10,11,13,25,54,72,73,75.22: 24,29,46,48,53,66.23:6,27,62,69.24:33, 36,69,77,83.25:27,28,69,77.26:28,61.27: 4,11,32,72.28:3,22,65.29:5,19,30,70.30: 2,3,4,16,21,65.31:6,8,9,30,68,75.32:24, 26,27,30,60,62,63,69.33:28,67.34:4,5, 30,77,83.35:10,19,40,41,42,45,65,104, 105,112.36:2,4,5,9,42,65,66,69,71,88, 92,98.37:8,9,23,24,36,54,64,84,85.38: 2,9,19,20,21,31,53,55,67,87,98,101,102. 39:5,21,22,23,27,28,29,31,42,63,65,67, 76,89,92,96.40:18,22,31,35,44,48,51,92, 93.41:7,16,17,22,24,36,45,57,69,84,87, 89.42:1,2,3,8,37,44,46,69,74,79,94.43: 11,27,36,37,45,53,98,101,103.44:10,11, 16,25,35,45,52,54,86,88,100,102,104.45: 2,4,6,11,21,23,25,33,45,65,66,76,77,79, 102.46:7,14,20,22,24,27,45,48,53,54,56, 66,68,70,71,91.47:21,23,25,26,27,35,46, 47,50,76,77,79,90,101,102.

Red-tailed Hawk:*Buteo jamaicensis* (Those page numbers followed by a "K" refer also to the subspecies, *kriderii*; those followed by a "C" refer also to *calurus*; those followed by an "H" refer also to *harlani*; the remaining numbers presumably refer to *borealis*.). 1:15.2:3,4,5, 26.3:3,4,5,6,7,13,25,31,40,42,48.4:4,5, 10,15,26,38,39,47,49.5:2,8,11,13,28,30, 56,65.6:7,49,73.7:3,11,35,49,58,64,84. 8:7,25,74,76.9:2,7,14,16,17.10:3,5,6,9, 12,13,43,44C,47,51,69,74,76.11:6,21,23, 36K&C,54,55.12:7,9,15H,32,37,71,72,74, 75.13:16,19,24,32,45,47,61,69,76.14:12, 13,15,16,37,40,49,50,60,66,73,79K,C&H. 15:9,22,26,28,31,33,62,69,74,77,78.16: 42,59,63.17:6,23,26,34,48,55,64,69.18: 7,17,18,20,22,23,26,54,57.19:5,8,21,23, 24K,C&H,36,61H,65,66,67.20:29,30,34,61. 21:10,11,25,59,72,74,75.22:24,29,53,66, 71.23:6,27,53,59,62,69.24:8H,13,33,36, 69,77,83.25:26,28,69,77.26:16,28,61.27: 4,11,14H,32,72.28:1,3,5,7H,22,39,40,65, 70.29:4,5,20,30,53,70.30:1,2,3,4,16,20, 21,33,65K.31:6,8,9,30,35,68,73,75.32: 3H,14,15H,24,26,27,30,57,60,61,62,63, 69.33:8,9K,28,54,68,71.34:1,3,4,5,11, 30,77,78,83,90.35:9,10,13,19,40,41,42, 45,104,112.36:4,5,9,11,42,64,65,66,71, 88,92,97,99.37:2,8,23,24,25,36,54,64, 73H,84,85.38:6,19,20,21,22,31,53,55, 67,68,87H,94,100,101,102.39:20,21,22, 23,29,31,45,47,65,67,76,92,96.40:22,31, 35,48,63,85H,93.41:7,10,16,17,24,36,42, 45H,46,56,57,62,71,84,89.42:1,3,8,21, 22,37,43H,48,57,72,74,79.43:11,18,27, 36,43,45,53,103.44:10,14,23,35,45,51, 54,99H.45:1,2,5,8,11,23H,33,45,99.46:7, 27,53,56,60,66.47:4,21,25,26,27,35,76, 82,85,90,101.

Red-shouldered Hawk:*Buteo lineatus.* 2:3, 14.3:5,6,7,13,42.4:5,14,15,38,47.5: 8,11,19,27,28,29,62,65.6:7,18,49,53, 71.7:11,25,54,58.8:4,7,74.9:7,52.10: 5,6,12,43,69,74.11:2,14,17,19,21,23, 31,32,55,61,66:12:7,9,24,25,32,59. 13:19,24,27,42,61,69,74.14:13,19,40,48, 56,67,73.15:8,16,28,69,77,78.16:12,33, 59.17:23,34,47,63,64,67.18:26,49,50,54, 57.19:21,23,24,36,61(*B.l.alleni*),67.20: 30,34,61.21:25,59,72,73,74,75.22:24,48, 53,66.23:6,13,27,59,62,69,74.24:8,17, 34,36,69,77,82.25:28,69,77.26:28,61.27: 4,11,32,72.28:3,10,22,65.29:4,5,20,28, 30,53,56,69,70.30:4,16,21,33,65.31:5,6, 8,9,30,68,75.32:24,26,27,30,60,61,62, 63,69.33:9,28,68,72.34:4,5,30,53,77,83. 35:9,10,17,31,40,41,45,61,112.36:5,9, 11,42,66,71,88.37:8,23,36,40,54,64,83. 38:2,6,9,19,20,21,31,53,67,68,87,94, 100.39:4,5,29,31,45,47,76.40:22,31,35, 48,68.41:7,16,17,36,45,47,57,62,71,73, 74.42:3,8,21,37,44,69,74,79.43:11,27, 36,45,76,78.44:10,25,35,45,52,84,100. 45:2,5,7,8,11,23,25,33,45,77,79,99,102. 46:7,45,48,53,56,66,68,78.47:4,26,27, 35,38,76,79,82,85,90.

Broad-winged Hawk:*Buteo platypterus.* 2:3, 11.3:13,36,48.4:15,21,47.5:22,27,50.6: 49,53.7:25,38,54.8:25,61.9:6,7,28,44, 64.10:4,61,69.11:55,61,66.12:32.13:40. 14:38.15:22,77,78.17:14,15,19,20,21,23, 27,67.18:26,62.19:5,21,23,36.20:16,30, 34,57-60.21:10,11,25,50,59,69-74.22:13, 23,24,29,30,48,53-57,71.23:27,53,62-65. 24:36,54,69-73.25:28,51,69-72.26:28,38. 27:4,10,11,12,20,32,51,67.28:1,3,22,32. 29:1,2,3,5,6,20,30,57,58.30:1,2,3,4,21, 38.31:1,2,3,4,5,6,7,8,9,30,44,47.32:5, 22,23,24,25,26,27,28,30,57-63.33:13,28, 47,50.34:1-6,28,30,53,75,76,77.35:7-13, 45,65.36:1,2,3,4,5,6,42,58,63,66,69,71, 92,95.37:1,2,3,23,24,25,36,40,53,54,55, 56,85.38:6,7,8,31,46,48,50,55,67,68, 101.39:5,27,28,31,34,42,43,45,47,65,67, 84,89,90,92.40:28,29,31,33,44,45,48,51, 68,89.41:14,15,16,17,36,42,52,56,57,69, 84,89.42:1,2,3,37,44,48,74,79,91,94.43: 35,36,37,43,45,50,99,103.44:25,34,35, 36,45,52,54,79,85,86,100.45:2,5,7,19, 20,23,32,33,45,76,77,79,102.46:12,20, 24,27,52,53,54,56,65,70,91.47:4,25,26, 27,77,79,82,84,85,90,101.

* Rough-legged Hawk:*Buteo lagopus*. 6:13.8:75.10:12.14:75.24:54,77,80.25:74,77.26:58,61.29:7.30:16,65.31:72,75.32:64,69.33:15,54,68(see Migrant,34:13).34:5.35:17,109.36:83,88.38:6,102.39:16,21,42,92.40:51.41:5,7,62.42:2,3,21,44.43:23,24,27,99.44:9,10,23,25,35.46:6,7,20,44,46,66,71.47:18,35,45,46,76.

* Ferruginous Hawk:*Buteo regalis*. 45:48.

Golden Eagle:*Aquila chrysaetos*. 2:7.3:19,21,22,23,24,30,39.4:4,5,26,47.5:14.6:13,36,40,49,72,93.7:4,25,46,47.8:24,27,35.9:41,44,52,65.10:4,6,9,13,14,48.11:2,21,54,55,100,102.12:75.14:16.15:78.16:6,7,8.18:7,41,42,60.19:24,36.20:17,19,29.21:54,68.22:24,29,71.23:8,58,68,69,72.24:77,83,84.25:77.26:10,25,27,28.27:72.28:8,65.29:1,5.30:57,62,65.31:4,5,6,8,9.32:11,17,24,57.33:15,20,68,76.34:2,4,13.35:21,57-59,64,104,112.36:1,42,83,88.37:2,85.38:6,50.39:21,43,45,47,75,76.40:20,45,51.41:3,7,17,22,43,47,83.42:8,19,22,43,44,72,84.43:7,11,23,24,27,50,103.44:8,22,23,27,34,35,68,80,88.45:10,21,23,25,33,63.46:7,18,22,27,40,46,53,54,56,67,68,71.47:15,18,35,45,46,47,76.

Bald Eagle:*Haliaeetus leucocephalus*. 3:7,9,10,12,13,16,17-25,35.4:4,15,48.5:8,11,29,41,60,62,64.6:12,13,18,34,51,52,93.7:3,25,46,98.8:16,19,40,50,55,74.9:7,12,13,29,53,65.10:12-14,28.11:3,27,60,61,76,101.12:8,17,24,25,38,63,71,74.13:23,42,49,71.14:37,41.15:30.16:6,12,64,65.17:63,64.18:29,41,57,62.19:24,25,67.20:29,33,34,61,64,68.21:14,59,72,75.22:13,37,38,39,46,53,66.23:12,27,40,41,51,53,58,62,69,72.24:13,36,69,77,83,84.25:15,55,69,77.26:28,50,51,61.27:4,11,19,32,51,69,71,72.28:3,4,5,9,10,13,14,43,65,70.29:7,10,20,30,34,58.30:3,4,9,16,57,65.31:5,8,9,10,72,75,80.32:3,5,7,24,27,57,59,60,62,63,69.33:15,18,49,65,68.34:2,4,5,13,22,75,77,83,89.35:7,17,19,21,31,45,58,65,104,112.36:1,9,21,32,42,85,88,95,98.37:2,6,7,8,9,10,25,64,68,84.38:6,20,21,46,50,87,94,96,98,102.39:20,21,22,23,42,45,47,65,76,89,92.40:16,18,20,22,44,48,62,70,88,89,92,96.41:6,7,11,22,41,43,46,83,84.42:8,19,21,43,44,46,71.43:11,14,23,24,27,35,36,42,50,70,99,101,103,104.44:8,10,22,23,25,27,34,35,50,52,56,67,68,78,79,80,81,96,99,104.45:11,21,23,25,33,63,90,101.46:8,10,27,40,44,46,51,53,54,65,72,78,88,89.47:15,18,21,35,38,46,47,77,101.

Marsh Hawk:*Circus cyaneus*. 1:15.2:3.3:7,42.4:5,47,48,49.5:8,27,65.6:7,13,49,93.7:11,20,98.8:7,18,40,61,64,74,78,86.9:7,12-14,16,17,69.10:5,6,12,69,74,75.11:21,23,112.12:5,7,9,11,59.13:16,19,45,61,72,76.14:73.15:30,69,74,77,78.16:59.17:21,64,69.18:54,57,58,62.19:23,24,36,67.20:29,61.21:5,10,52,53,60,72,75.22:48,53,66.23:26,27,53,59,62,69.24:8,13,59,69,77.25:28,69,77.26:48,61.27:4,11,32,72.28:3,21,22,61,65.29:5,6,20,30,53,70.30:2,4,16,21,33,65.31:6,8,9,30,68,75.32:24,26,27,30,61,62,63,67,69.33:9,18,66,68.34:4,5,53,83,87.35:9,10,45,61,104,105,109,112.36:2,4,5,9,11,42,63,71,75,88,95,97,99.37:6,8,23,36,64,84,85.38:6,17,19,20,31,46,47,48,50,53,67,87,94,98,101,102.39:21,22,29,31,42,43,45,76,89,92,96.40:18,20,22,31,45,48,51,77,89,92,93.41:7,10,14,16,17,22,24,36,43,46,69,87,89.42:1,3,8,21,37,46,69,91,94,95.43:11,35,36,53,55,103.44:10,25,27,35,45,52,80,100,102.45:11,23,33,45,65.46:8,22,24,46,48,53,56,68,70,87.47:23,26,27,35,77,79,90.

Osprey:*Pandion haliaetus*. 3:13,27,36.4:5,15,20,22,47,48.5:26,27,28,43,62.6:17,34,39,49,91.7:3,98.8:41,53,74,76.9:2,53,64,97.10:3,14,32.11:50,54,76.12:24,26,32,36,71,72,74.13:24,35,43,76.14:37,40,56,60.15:28,35,56,74,78.16:12,34.17:24,28.18:26.19:21,67.20:31,34,68.21:5,25,60,72.22:24,46,53,71.23:28,62.24:36,69.25:28,55,69.26:28,48,51.27:4,11,20,32,51.28:3,22,42,46,60.29:1,5,6,20,28,30,56,58.30:2,3,4,21,37,63,65.31:5,6,8,9,30,68.32:24,26,27,30,44,45,60,62,63.33:28,50.34:2,3,4,5,22,23,30,52,53,60,61,62,73,79,96.35:10,31,38,40,41,42,45,66,101,104,105,117.36:2,3,4,5,19,30,63,65,66,67,71,98,99.37:2,13,23,25,36,80,85,87.38:6,31,46,47,48,50,53,55,61,95,98,99,101,102.39:18,27,29,31,34,45,47,65,76,89,92,96.40:20,22,31,35,44,45,48,63,70,77,89,92.41:14,16,22,36,43,46,68,69,71,72,84,87,89.42:2,3,7,8,37,71,91,94,95.43:24,35,37,45,53,55,78,99,101,103.44:10,25,34,35,45,52,54,86,100,102.45:12,28,33,34,41,45,77,79,101,102.46:6,20,22,28,53,56,66,68,70,86,87,88,89,91.47:18,23,26,27,35,39,46,47,76,77,79,90,101.

* Gyrfalcon:*Falco rusticolus*. 13:58(observations on the moult of a captive bird).

* Peregrine Falcon:*Falco peregrinus*. 3:28,29.4:4,15,23,26,38,43,48.5:8,50,65.6:18,36,92.7:5,58,84.8:19,25,41,50,74.9:2,7,29,41,42,44,64.10:6,14.11:3,21,29,55,76,115.12:7,72.13:19,29,47,75.14:17,25,40,57,60,61.15:55,66,78.16:14,45,56,59.17:14,23,24,64,67.18:49,57,60.19:13,21,36,67.20:16,31,61,67.21:48,60,72.22:53,65,66.23:27,59,62,69.24:13,36,69,77.25:28,69,76,77.26:28,50,61.27:11.30:3,4,38.31:8,9,44.32:24,27,28,30,69.33:2,68.34:5,6,81,83.35:56,63,112.36:2,85,88.37:36,39,64,67,83,85.38:6.39:45,90,92.40:28,49.42:91,94.43:11,14,24,36,44,45,75,99,101.44:7,10,22,25,34,35,68,78,100.45:33.46:22,53,54,66.47:23,26,47,68.

Merlin:*Falco columbarius*. 9:7,65.11:4.12:39,71,72.13:16,74.15:78.20:31,37.21:12,61.22:47,53.23:66.24:69.25:18.27:17,20.28:3,14,43.29:20,50.31:68.32:3,30,41.33:16.34:5,6,72.35:10,17,25,30,38.36:95.38:6,94,98.39:22,45,75,76.40:16,18,28,33,35,51,55,92.41:43,62.42:3,19.43:14,23,24.44:23,27,32,52.46:18,20,28,46,53,60,66.47:18,38,47,77.

American Kestrel:*Falco sparverius*. 2:3,4,6.3:7,13,42.4:2,5,15,24,26,49.5:8,18,44,50,62.6:7,49,71.7:3,4,11,35.8:7,25,78.9:7,16,67,70.10:3,5,6,9,33,43,61,67,69.11:21,23,45,54,77,106.12:7,9,10,32,35,37.13:16,19,24,29,55,61,72,75,76.14:13,39,57,60,73.15:9,16,22,43,57,69,71,77,78.16:15,30,34,47,59.17:23,26,28,30,64,69.18:26,33,54,57.19:11,13,21,27,36,66,67.20:28,29,30,34,61.21:10,25,60,72,75.22:17,24,48,53,66,71.23:6,27,59,62,69.24:36,69,77.25:28,69,77.26:28,61.27:4,11,32,72.28:3,22,65.29:5,20,30,53,70.30:1,3,4,16,21,39,65.31:2,5,6,8,9,30,39,68,75.32:14,24,26,27,30,60,62,63,69.33:28,68.34:4,5,11,30,77,79,83,90.35:10,25,26,29,30,40,45,61,92,104,105,109,112.36:3,10,11,12,64,65,71,88,92,97,98,99.37:9,24,36,40,55,64,84.38:9,10,13,17,21,31,53,54,65,68,87,102.39:4,23,29,31,43,64,76,81.40:16,31,35.41:7,16,17,36,57,62.42:1,9,37,76,94.43:11,36,45,89.44:10,14,23,32,35,45,80,86.45:2,5,12,33,45,67,77,99,102.46:8,16,22,28,53,56,60,66,89.47:4,26,27,35,43,76,82,90,101.

Ruffed Grouse:*Bonasa umbellus*. 4:27.5:51.6:49.7:22,34,48,58,84.8:25.9:2,6,7,44,54,57.10:6,14.11:21,31,117.12:7,12.13:19,40,61.14:61,73.15:28,32,62,69.16:47,59.17:24,55,64,67.18:54.19:21,36,66,67.20:28,30,34,61.21:25,54,60,75.22:24,49,66,70.23:27,69,74.24:36,45-52,77,83.25:28,77.26:27,28,38,61.27:4,19,32,72.28:21,22,33,45,65.29:20,30,57,58,70.30:21,38,63,65.31:30,75,78.32:30,69,72,73.33:3,5,17,21,27,28,40,50,68,71.34:11,30,74,83,88,89.35:45,110,112,115.36:10,71,86,88, 92,97.37:36,40,64,69,70,84.38:32,40,69,87,93,98,100.39:17,21,31,67,77,81,83,90,92,96.40:24,35,49,51.41:8,36.42:9,37,44,55,74,78,83.43:11,18,45,50.44:10,45,80,84.45:12,45,82,83.46:8,56.47:35,43,77,90,102.

* Greater Prairie Chicken:*Tympanuchus cupido.* 43:62.44:68.

Bobwhite:*Colinus virginianus.* 2:3,5,6,14,17,23,24,28.3:7,13,42,44,49.4:2,3,5,11,15,24,27,37.5:2,6,8,18,22,30,31,46,47,51.6:5,7,82.7:2,3,11,34,57,84.8:7,17,29,76.9:2,7,12,16,18,19,30,44,46-48,65,69,70,71,92.10:3,3(*c.v.texanus*),5,6,44 (*c.v.texanus*),51,78.11:21,23,55,64,73,75,92,104,117.12:5,9,32,37,45.13:14,16,19,44,55,61,76.14:11,53,54,73.15:2,22,26,28,57,62,69,71,76,77.16:28,34,58,59,60.17:24,48,55,64,69.18:26,33,54,57.19:5,11,12,21,37,67.20:30,34,61.21:25,54,60,75.22:15,24,48,49,66.23:5,27,69.24:36,77.25:28,77.26:16,28,51,61.27:4,32,51,72.28:22,48,49,51,52,53,65,69.29:20,29,30,70.30:21,37,41,54,65.31:13,22,28,30,39,59,68,75.32:30,69.33:9,28,68.34:11,30,74,83,90.35:45,64,112.36:10,71,75,88,92,96,97.37:36,46,64,71.38:2,9,10,12,32,48,87.39:4,8,31,34,43,77,85.40:1,2,3,4,5,35.41:8,36,56.42:9,37,74,79.43:11,45.44:10,45,78,85,101.45:2,3,5,7,12,45,65.46:8,28,56.47:3,4,36,38,54,82,83,84,85,90.

Ring-necked Pheasant:*Phasianus colchicus.*3:13.4:3.13:17.22:66,69.24:76,77.26:58,59,62.27:5.28:48.29:36,68,70.30:65.31:22,28,30,34.32:7,30.33:54.34:30,54.35:39,42,45.36:69,88.37:36,56.38:9.39:31,92.40:33,35,49,70.41:87.42:37.43:11,27,45,53.44:14,45,86.45:2,5,12,14,15,46.46:12,56.47:46,101.

* Chukar:*Alectoris chukar.* 11:11.

* Coturnix Quail:*Coturnix coturnix.* 28:48.29:68,70.30:58.

Turkey:*Meleagris gallopavo.* 2:16.3:7,9.4:3,27.6:21,49.7:48,58.8:25.9:6,7.10:6.11:23,25,54,55,117.12:7,10.13:20,62.14:74.15:63.16:17-24,59.17:55,63,68.18:29,54.19:12,37.20:61.26:1-8,49.27:5,19,75,81.28:22,26,33,65,70.29:70.30:65.32:45,69.33:28,37,40,61,62.34:81,83.35:112.36:99.37:64.38:32,46,87,101,102.39:5,47,67.40:24.41:8,36,56.42:7,9,37,44,83,84.43:11,45,55,78,80,98.44:8,11,45,58,61,62,65,102.45:2,5,6,10,25,45,104.46:8,56.47:29,36,38,39,82,90.

Sandhill Crane:*Grus canadensis.* 2:22.7:24.10:16.11:61,115.13:56.14:15.23:7.24:11.25:54.29:20.31:18,19,41,42,43.32:7.34:93,94.35:38.36:13.37:15,16.

38:2,3,97,98.39:45,90,92,96.40:20,22,45,49,63,64,65,89.41:43,46,83,84.42:21,44,46,94.43:24,27,29,30,31,32,33,34,43,101.44:9,10,23,25,88.45:21,23,52.46:28,46,68,71.47:18,21,40,44,46,47,68,77.

* Limpkin:*Aramus guarauna.* 32:48.33:20(Mississippi).

* King Rail:*Rallus elegans.* 3:10,13,28,36.4:15,20,22,39.5:28,29.6:23,24,30,34,36,49,52,61,71,72.7:3,37,43,47,49,67.8:21,31.9:28,30.10:3,31.12:8,18,35.13:71.15:7,22,32.18:26.19:37.20:33,34,44.21:25.22:13,24,27.23:9,27,46,53,66.24:36.25:22,29.27:5,50.28:20,22,43.29:20.31:30.32:10,30,42,43.34:20,21,28,29,30.35:45.36:63,68,71,95.37:36.38:32,50,67,98.39:45,53,54,55,57,58,65.40:35,49,68,70,92.41:36,57,63,64,65.42:46,69,71.43:23,50,53,78,101.44:51,52,86,102.45:77,103.46:1,2,22,28,46,56,68,90.47:21,47,77,90,101.

* Virginia Rail:*Rallus limicola.* 6:49.7:37.11:103.17:27,28.18:33.20:43.21:45,50,52,81.22:63.23:49.24:8.25:16.26:28,50.27:10.28:45,46.29:20,54,55,57.31:63,64.32:30,44,45.33:48.34:20,30,66,75.35:39,59,64,96,101,102.36:71,81,93,98,99.37:11,23,36,62,65,67,80.38:18,32,36,50,95.39:31.40:26,89,92.41:6,8,36,46.42:21,46,71.43:50,53,78,101.44:6,26,27,45,51,52,100.45:22,23,24,30,45,58,76,77,103.46:20,22,41,46,50,56,65,68.47:9,18,21,39,47,75,76,77,90,93,100.

* Sora:*Porzana carolina.* 3:13,28,37.4:15,21.5:6,10,26,28,42.6:3,12,23,30,49.7:37,43,46,67,73.8:22,23,86.10:31,33.12:36,60.14:37.15:32.16:34.17:24,27.18:26,27.19:21.20:11,12,34,61,64.21:5,25,45,60,81.22:19,24,62,63.23:27,75.24:8,36,58.25:16,22,29,67.26:26,28.27:5,10,32,52,67,68.28:20,22,45,56,61.29:20,30,57.30:21,25,38.31:30,47,64.32:30,42,43,45.33:7,28,48.34:7,28,39,31,66.35:42,45,59,63,96,105.36:63,64,66,71.37:20,29,36,62,83.38:1,2,3,32,46,48,50,65,98.39:26,31,34,42,45,65,92.40:26,35,49,79.41:34,36,43,71,84.42:37,46,69,92,94,95.43:25,45,50,53,75,76,101.44:26,45,50,51,52,54,102.45:24,45,76,77,79.46:19,20,22,42,46,50,56,68,70.47:17,18,21,23,39,75,76,77,90.

* Yellow Rail:*Coturnicops noveboracensis.* 25:13.28:55.29:27.31:63,64.38:95.42:15.

* Black Rail:*Laterallus jamaicensis.* 6:49.19:37.35:59.

* Purple Gallinule:*Porphyrula martinica.* 3:28.4:20.6:22,34.7:38,45,47.8:21,37,59.9:1.10:31.13:46.14:54.22:45.23:27,46.24:36.25:29.26:28.30:9.32:43.33:34.34:28,31,50.35:40.37:20,23,35,36.38:41,50,67.39:42,45,65.41:36,71.42:87.44:52,54,86.45:94.47:18.

* Common Gallinule:*Gallinula chloropus.* 3:13.5:42,60.7:45.8:50,59.10:16.11:117.12:26,36,74.15:18.20:61,64.22:17,45.23:27.25:17,27,29.26:10,26,28.27:17,30,32.28:45.29:20.31:11.32:42,44.34:22,28,29,31,75.35:46.36:54.38:32,46.39:42.42:46.43:45,55.44:45,52.45:77.46:1,56,66,68,90.47:21,76.

* American Coot:*Fulica americana.* 2:4.3:7,14,22,27,28,42.4:5,15,48,51.5:8,11,26,28,41,42,60,64,65.6:3,7,12,14,17,30,37,49,92.7:11,23,31,100.8:7,19,21,22,23,50.9:7,12,29,46,64.10:3,6,58,74.11:21,78,103,104.12:7,11,17,26,71,72.13:17,19,62.14:13,39,51,74.15:32,66,69.16:59,65.17:24,64,69.18:25,26,54,57.19:2,3,67.20:31,34,61,67.21:25,60,75,81.22:18,24,66.23:12,27,54,69.24:13,14,17,36,77.25:27,29,77.26:28,48,50,62.27:5,19,32,68,72.28:9,22,43,60,61,65.29:20,30,53,70.30:16,21,33,65.31:14,30,62,68,75,78.32:9,30,66,69.33:7,9,13,28,49,55,68.34:12,22,31,37,66,72,77,79,83,87.35:15,19,36,37,39,42,46,61,96,103,106,112.36:7,9,18,52,63,65,66,67,71,88,91,92,95,97,98,99.37:6,8,10,20,23,25,29,36,61,62,65,80,83,84,85.38:2,18,20,21,22,32,46,48,50,55,65,66,67,68,87,94,97,98,100,101,102.39:20,21,23,31,42,43,65,77,90,92.40:16,20,22,35,45,49,51,54,68,75,76,77,78,89.41:8,22,36,47,69,71,72,84.42:9,19,37,46,68,69.43:12,25,45,53,76,103.44:10,23,27,45,52,84,86,100.45:2,12,21,45,103,104.46:8,46,56,88,90.47:4,18,36,82,90,99,100,101.

Semipalmated Plover:*Charadrius semipalmatus.* 2:23.3:14.4:9,15.5:26,29.6:30,35.7:38,73,102.8:58.9:29,30,64.10:57.11:76,78.12:22,58.13:67.14:51.15:55.16:12,44.18:62.20:31,69.21:5,24,25,60.22:17,24.23:27,54.24:35,36,56,60.25:22,29,52.26:28,47,51.27:32,51,67.28:42,59,60,61.29:6,20,30,45,46,48,49,53.30:19,21,33,35,37,38.31:30,54,68.32:30.33:9,12,26,28,48,50,52.34:9,31,49,79.35:43,46,61,66,106.36:18,63,65,68,71,75,95,96,98.37:23,36,54,56,85.38:32,36,46,48,50,67,98,101.39:31,34,65,92.40:35,89.41:5,8,12,36,66,67,69,72,84,87.42:33,37,72,74,91,94.43:27,45,53,75,76,78,89,98,99,101,103.44:45,84,99,102,104.45:45,77,101,103.46:16,17,22,56,65,66,68,88,90.47:6,18,21,23,75,77,82,90,102.

* Piping Plover:*Charadrius melodus.* 6:35.23:54.25:48.29:51.33:12.41:87.43:75,89,90,99,101.44:7,45.46:16.

* Wilson's Plover:*Charadrius wilsonia.* 28:57.32:44.43:62.

Killdeer:*Charadrius vociferus.* 1:15.2:4,5,14,25.3:7,11,14,30,32,42.4:5,9,15,21,27.5:2,6,8,18,22,40,45,51.6:2,8,30,33,51,61,68,72,91.7:2,3,5,11,53,59,67,68.8:7,27.9:7,14,16,17,30,46,64,92,97.10:3,5,6,55.11:10,13,21,23,77,78,103,112.12:7,9,17,18,32,72.13:17,19,47,55,62,63,67,71,76.14:11,65,74.15:9,16,22,27,28,55,69,77.16:44,59.17:24,64,69.18:26,54,57,62.19:8,11,21,37,67.20:30,34,61.21:11,25,60,75,81.22:13,15,17,19,24,28,66.23:5,13,27,58,59,69.24:13,14,16,36,56,78.25:22,29,33,77.26:16,28,43,47,62.27:5,32,47,67,72.28:8,22,41,65.29:20,30,45,46,48,49,51,53,70.30:16,21,33,35,61,65.31:30,39,54,68,75.32:18,19,30,45,69.33:10,26,28,52,68.34:12,29,31,57,74,83,86,90.35:15,36,40,46,103,112.36:9,11,17,18,62,67,69,71,88,92,97,98.37:9,20,36,55,65,84.38:2,3,9,10,13,20,21,32,88,95,102.39:31,34,43,77,90.40:19,22,35,54,68,75,76,77,78,89.41:8,36,56,66,69,84.42:4,9,33,37,59,74,79,91,94.43:11,27,45,62,78,89,90,91,93.44:11,14,26,45,50,78,100.45:2,5,12,19,21,24,45,68,95,99.46:8,17,20,28,45,46,56,61,62,68,78,80.47:18,36,47,77,82,85,90.

American Golden Plover:*Pluvialis dominica.* 7:43.10:15.12:35.19:61.21:13,21-23.22:13,23,45.23:9,24,27,32.24:54.25:15,22,33,51.26:10,25,28,32,46,47.27:17.28:7,26.29:7,8,44,48,49,51,53.30:36.31:11,54,68.32:3,4,18,19,41,42,49.33:9,12,13,47,48.34:7,9,31,49,71.35:14,30,46,102.36:94.37:80,82.38:2,3,46,50,94,95,98.39:42,45,92.40:22,44,53,54,89.41:3,41,84,87.42:21,37,43,46,91,94.43:49,98,101.44:7,23,45,102.45:24,45,101.46:22,46,56,68,87.47:18,21,47,75,76,77.

Black-bellied Plover:*Pluvialis squatarola.* 3:48.4:47.6:30.9:29,64,68.10:15.21:5.23:32.24:41.25:52.26:47.28:26,57,59.29:20.30:35,37.31:45,69.32:19,43.33:9.34:51.36:63.37:80,81,85.38:2,3,30,32,50,98.39:45,64,92.40:22,92.41:84,87.42:21,69,71,91,92,94.43:23,27,53,76,98,101.44:7,30,50,52,100,102.46:22,28,56.47:6,17,18,21,46,48,76.

* Ruddy Turnstone:*Arenaria interpres.* 28:58.34:54.35:15.37:57.41:87.42:32,91,94.43:89,98,103.44:7,99,102.45:19,101.46:19.47:21,100.

American Woodcock:*Philohela minor.* 1:5.2:5,6,23.3:27,33.4:22,39.5:4,5,10,22,40,41,51,58,59,65.6:3,14,30,49,71.7:48,67.8:7,15,16,25,30,42.9:44.10:3,4,6,9,13,33,55,74.11:21,23,27,28,56,112.12:9,32,34,36.13:19,46,49.14:14.15:22,35.16:14,47.17:24,35.18:7.19:12,37.20:30,65.21:13,15,52,60.23:2,14.24:8,36,78,80.25:19.26:16,51.27:5,19,30,32,52.28:43,61,62,65.29:7,20,44,58,59.30:21,36,37.31:15,30,46.32:5,8,9,30.33:15,16,18,28,50,63,68.34:14,31,54,71,89,95.35:37,41,52,102,112.36:8,10,12,57,63,64,65,71,88,96,97,99.37:10,13,20,24,25,36,56,65,84,85,87.38:9,16,18,19,20,21,32,48,53,54,55,66,67,68,88,94,95,98,101,102.39:19,21,23,31,45,77,90,92.40:16,19,22,24,35,45,51,89.41:6,22,24,36,43,46,47,71,72,87.42:9,21,37,44,46,69,71,74,79,94.43:6,12,15,22,23,25,27,45,78,101.44:11,22,23,26,27,45,54,78,86,102.45:10,12,24,26,45,77,79,103.46:8,12,28,46,56,64,67,68,71,90.47:36,40,46,48,50,62,76,77,82,90,101.

* Common Snipe:*Capella gallinago.* 2:4.3:7,28,42.4:5,20,51.5:8,27,28,29,64.6:3,8,30,45,49,53,91.7:11,19,23,25,38.8:7,19,23,76.9:2,7,12,97.10:3,6,13.11:7,21,26,28,112.12:7,9,15,72.13:17,19,23,62.14:13,74.15:32,69,71.16:34,59.17:27,64,69.18:26,55.19:21,37,67.20:30,34,61.21:13,14,15,25,60,75.22:24,62,66,71.23:9,14,24,27,69.24:14,16,17,18,34,36,57,78.25:18,19,22,29,77.26:28,48,50,51,62.27:5,19,32,50,72.28:11,23,32,59,60,65.29:9,10,20,30,45,46,48,49,53,54,56,70.30:11,16,21,34,65.31:16,30,69,71,75.32:8,18,19,30,67,69,72.33:9,28,68.34:7,31,54,74,79,83.35:39,43,46,63,101,102,103,112.36:9,10,11,12,17,18,63,64,65,66,72,88,92,95,98,99.37:6,8,9,10,23,25,27,29,36,54,56,65,81,83,85.38:2,9,10,20,21,22,32,36,48,50,53,54,55,88,94,95,98,99,100,101,102.39:21,22,23,31,34,42,43,45,47,66,67,77,79,92.40:20,22,35,45,49,51,54,75,76,77,89.41:8,22,24,36,43,47,71,84,89.42:9,19,37,44,46,48,92,94,95.43:12,15,18,25,27,43,45,53,69,78,88,89,93,101.44:11,26,45,52,102.45:12,24,45,76,77.46:6,8,12,19,22,24,46,56,68,78,90.47:21,36,38,48,75,77,90.

* Whimbrel:*Numenius phaeopus.* 5:40.43:92,93.47:18.

Upland Sandpiper:*Bartramia longicauda.* 3:10,48.4:22.5:26,45,58.6:31,33,72.7:17,38,67.8:64.9:63,69.11:8-11,14,32.12:35,36,59.13:43,44.14:37,65.15:29,32,76.17:21,28.18:62.19:21,61.20:31,69.21:13,51,60.22:18,23,27,45,47.23:53.24:55,57.25:29,51,52,53.26:10,47,48.27:5,32,49,68.28:7,41,42,59,62,65.29:20,48,49,53.30:35.31:31,44,69.32:4,41,42.33:47,48.34:31,51.35:38,46,50,102.36:43.37:36,53.38:46,65,66.39:31,34,64.41:66,84,87.42:37,46,91,94.43:45,48,50,53,76,78,101,103.44:7,32,45,52,84,100.45:77,101.46:19,20,28,86,88.47:17,18,75,90,100.

Spotted Sandpiper:*Actitis macularia.* 2:9.3:14.4:9,15,21,22,38,39,48.5:6,26,29,40,44,51.6:3,31,51,52,61,91.7:3,7,38,46,49,53,67,70,103.8:22,58.9:29,30,67,95.10:3,42,51.11:54,77.12:5,22,24,58,73.14:14,18.15:55,77,78.16:34,44.17:24.18:26.19:21,37.20:31,34,69.21:5,25,52,60.22:17,24,45.23:6,27,54.24:36,55,57,60.25:22,29.26:18,19,28,48,51.27:5,32,51,67.28:23,42,46,59,60,61,62,65.29:7,20,30,44,45,48,49,53,54,59.30:10,14,21,34,35,37,55,60,65.31:10,11,31,46,54,69.32:18,19,30.33:9,13,26,28,48,51,52,55.34:23,31,37,50,54,57,79.35:15,36,43,46,61,65,101,102,104.36:18,63,64,65,66,67,68,69,72,92,93,95,99.37:20,23,24,25,36,53,54,56,57,81,83.38:2,16,18,32,46,48,50,54,55,65,66,67,68,88,90,94,95,98.39:19,31,34,42,45,47,63,64,66,67,90,92.40:35,49,68,70,75,76,77,89.41:22,36,43,66,69,71,72,84.42:37,44,48,67,68,69,71,74,94.43:12,23,25,45,50,53,75,76,78,89,91,101,103.44:11,22,45,84,86.45:2,24,45,68,77,79,101,103.46:22,56,68,70,71,86,87,90.47:6,48,50,75,82,90,99,100,101.

Greater Yellowlegs:*Tringa melanoleuca.* 3:14,42.4:15,21,48.5:10,26,29.6:12,31,91.7:38,43,46,49,67,73,100.8:23.9:30.10:32,74.12:58,71.15:55.16:34,44.17:24,27.19:21.20:31,34,69.21:5,11,26,60.22:17,23,24,71.23:9,27.24:14,36,54,74.25:23,29,51.26:28,47.27:5,18,32.28:7,8,23,42,59,60,61.29:7,21,31,43,45,46,48,49,56.30:22,25.31:10,31,44,54.32:4,30,45.33:12,26,28,48,52.34:7,8,28,31,37,54,57,72,79.35:39,43,46,61,104.36:18,43,62,63,64,65,68,72,93,95,98.37:20,23,25,36,54,84.38:32,46,48,50,54,67,98,101,102.39:31,35,42,45,66,93.40:15,35,46,49,54,75,76,77,90.41:36,41,46,71,84,88.42:37,68,74,87,94.43:1,27,45,53,55,75,76,78,86,89,98,101,103.44:11,23,26,30,45,52,84,86,102.45:45,78,79.46:20,22,44,46,56,68,70,71,88,90.47:21,23,45,46,48,75,90.

Lesser Yellowlegs:*Tringa flavipes.* 3:14,42.4:8,9,15,21,36.5:10,11,26,28,29,40,42,45.6:12,31,34,52,91,92,93.7:23,31,37,43,46,49,54,67,70,73.8:15,23,58.9:

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Solitary Sandpiper:*Tringa solitaria*. 2:23.3:14.4:9,15,19,21,38,39,48.5:6,26,28,29,40,44,64.6:31,51,61,93.7:7,38,46,49,53,67,70,71,72,100.8:22,23,36,58,86.9:29,30,95.10:3,31,42,44.11:10,30,31,77,78.12:5,22,36,37,58,73.13:44,56.14:41.15:32,55.16:14,34,44.17:24.18:26.19:21.20:31,34,69.21:5,26,41,52,60.22:17,24,45.23:27.24:36,55,60.25:12,23,29,53.26:28,48.27:5,18,32,52,67.28:23,41,42,59,60,61.29:21,31,44,45,48,49,51,53.30:10,22.31:31,54.32:30.33:9,26,28,48,52.34:31,49,50,54,57.35:15,39,43,46,61,63,94,104.36:18,19,30,63,65,66,68,72,92,93,95,99.37:20,23,25,36,53,54,56,83,85.38:32,46,48,50,53,54,55,67,68,98,99,101.39:31,34,42,43,45,47,66,90,93.40:15,35,49,68,75,76,77,89.41:36,39,40,43,66,69,71,72,84,89.42:37,59,68,69,94.43:45,53,75,76,78,89,101,103.44:23,45,52,84,102.45:21,45,77,79,103,104.46:17,20,22,56,68,70,90.47:46,75,79,82,90,99.

Willet:*Catoptrophorus semipalmatus*. 6:49.7:67.10:56,57.14:51.25:23.27:40.28:23.29:28,31,48,49,53.34:39,54.36:68.37:23,36,54,75.38:30,32,36,48.40:45,65,68,92.41:3,36,87.42:46,59,92.43:53,75,99,101.44:7,40,51,52,81,84,102.45:45,76.46:22,56,68.47:77.

* Red Knot:*Calidris canutus*. 21:5(Alabama).26:32,47.32:19.33:9.44:99.

* Sanderling:*Calidris alba*. 21:6(Alabama).24:40(Mississippi).26:43.30:35.31:11,46,69.32:19,30.33:10,13.34:9,52,73.35:15.36:18,93(Arkansas).39:93.40:75-77 (Arkansas),88,92(Virginia).41:88,89.42:44,91,94.43:75,98,100,102,103.44:7,99.45:95.46:19,20,22.47:17,18,21,23.

Semipalmated Sandpiper:*Calidris pusilla*. 2:23.3:28.4:9,15,22.5:26,29,44.6:31,34,35,51,52,91.7:67,73.8:58,86.9:29,30,64,95.10:45,57.11:76.12:22,58,71.13:67.14:56.15:55.16:45.20:31,35.21:6,26,51,68.22:45.25:23,29.26:28,43,51.27:51,52.28:23,42,43,59,60.29:21,29,31,45,46,49,53,56.30:9,35,55.31:10,11,31,45,54,59,69.32:19.33:12,26,29,50,51,52.34:31,49,50,54,57.35:36,37,38,43,61,63,65,101,102.36:18,19,63,68,72,83,84,88,95.37:36,39,55,56,83,85.38:32,48,51,67,68,95,98,101.39:31,34,64,66,93,96.40:22,33,35,83,90.41:66,67,69,71,85.42:19,21,37,68,69,74.43:1,27,45,50,53,75,76,79,89,91,102,103.44:40,52,84,86,102,104.45:2,45,78,95,101,103.46:17,22,24,56,61,68,80,88,90.47:3,6,21,75,82,90,99,101,102.

Western Sandpiper:*Calidris mauri*. 6:52.7:67.8:58.9:64,95.10:45,57.11:76.12:58,71.13:67.15:55.19:21,22,62.20:31,35.21:6,51,60.22:45.24:56.26:51.27:31,32,67.28:42,61.31:59,80.32:43.33:26,29.34:54.35:15,66.36:19,63,68,95.37:36,55,56,83,85.38:93,98.40:22,90,92.41:71,85,88.42:37,69,71,92.43:1,2,25,27,50,53,75,76,98,102,103.44:7,51,84,98,99,100,102.45:21,45,78,101.46:21,22,56,88,90.47:6,21,23,77,100,102.

Least Sandpiper: *Calidris minutilla*. 2:23.3:14,28.4:15,21.5:26,29,40,44.6:31,34,51,52,91.7:38,67,68,73,100.8:58,61.9:29,30,64,95.10:3,31,44,57.11:76.12:11,26,58.13:67.15:30,55.16:45.17:24,28,63,64.18:62.19:61.20:31,35.21:5,13,26,51,60.22:17,24,45.23:9,27.24:36,56,76,78.25:16,23,29,34,53,75,77.26:28,48.27:5,32,50,67.28:7,8,23,42,43,59,60,62,65.29:7,21,31,45,46,48,49,53,56,59.30:22,34,35.31:10,11,14,31,45,46,69,72,75.32:5,18,19,30,45.33:24,26,29,49,51,52.34:7,8,31,37,49,50,51,54,57,79.35:16,36,38,43,46,61,63,65,66,101,102,103.36:10,18,19,43,63,65,68,72,93,98,99.37:8,23,24,25,36,53,55,56,83,85.38:20,32,51,67,68,93,94,98,101.39:13,19,21,31,34,42,45,64,66,75,77,81,89,90,93.40:20,22,35,45,54,68,83,90.41:5,8,10,11,22,36,46,67,69,71,85,89.42:21,37,68,69,74,94.43:12,23,27,45,53,55,75,76,78,89,91,93,101.44:11,22,23,26,45,52,84,86,104.45:2,4,5,12,24,45,76,78,101,103.46:8,17,22,24,28,43,46,56,68,80,88,90.47:4,21,36,45,48,75,82,90,99,101,102.

White-rumped Sandpiper:*Calidris fuscicollis*. 3:37.4:15,19.7:68,100.21:50.23:10.24:35,36.25:23,29.26:48.29:48,49,53,59.30:9,37.31:31,45,47,54,69.32:41.34:49.35:35.39:31,34,66.40:14,54,70,92.41:3,88.42:68,71,91.43:50,53,75,76,79,101,103.44:7,51,52,84,86,100.45:76,78,101.46:17,56,88.47:6,17,18,21,76,82,99,100,101.

* Baird's Sandpiper:*Calidris bairdii*. 7:102.10:44(Mississippi).29:51.32:42.33:52.36:18.38:93.41:85.42:48,68,69,71,92.43:50,90,99,101.44:7,26,45,51,100.45:76,101.46:20,22,61,66,88,90.47:6,76,77,90,94,100.

Pectoral Sandpiper:*Calidris melanotos*. 4:8,21,48.5:26,45,62.6:12,32,51,52,91,93.7:37,43,67,70,73.8:15,18,23,28,58.9:30,64,95,97.10:57.11:14,76.12:58.14:56.15:55.16:45.17:27.18:62.19:21.20:69.21:6,11,13,26,51,68.22:17,24,28,45,48,71.23:9,27.24:55,56.25:23,29,53.26:28,47,50,51.27:17,32,49,50,67.28:7,8,14,23,41,42,43,46,58,59,60,61.29:7,21,31,45,46,48,49,53,56,59.30:22,35,37.31:11,12,14,31,44,45,46,47,54,69.32:4,19,30.33:12,21,24,25,26,29,48,51,52.34:7,9,31,54,57,79.35:46,61,66,94,101,102,106.36:17,18,63,64,68,72,98.37:23,25,36,54,56,81,83,85.38:2,32,47,48,51,67,95,98.39:31,42,45,66,89,93,96.40:22,35,44,46,49,54,75,76,77,90.41:22,36,41,43,46,66,69,71,85.42:37,44,59,63,68,69,72,87,94.43:1,27,45,53,75,76,78,89,91,101,103.44:23,26,45,52,84,86,102.45:21,45,78,79,101,103.46:17,22,44,46,56,65,68.47:21,23,41,47,48,75,79,82,90,101.

* Purple Sandpiper:*Calidris maritima*. 43:62.46:80.

Dunlin:*Calidris alpina*. 8:40.10:15.13:20.18:33.21:5,11,24,26.25:23.26:58,59,62.27:17.28:58,59,61,71.29:5,21,44.30:9,36.31:10,11,69.32:5,18,19.33:12,13,15.34:79.35:35,103.36:17,18,19,43,93,98,99.37:10,80,81,83.38:18,30,32,36,47,54,88,93,95,98.39:19,21,45,75,77,81,93.40:22,49,54,90.41:5,8,11,22,46,85,88.42:19,21,46,68,69,91,92,94.43:12,23,27,43,50,53,99,101.44:26,45,50,52,102.45:12,24,45,78.46:8,20,22,43,46,68,78,90.47:6,18,21,36,48,77,79,90.

* Dowitcher:*Limnodromus*. For about the first 20 years that Dowitchers were reported in The Migrant, it was believed (A.O.U. checklist, 4th ed., 1931) that there was only one species with two recognizable subspecies -- the Eastern and the Long-billed. The Fifth Edition of the A.O.U. checklist, 1957, recognized two species -- the Short-billed Dowitcher (with three subspecies) and the monotypic Long-billed Dowitcher. Consequently

in The Migrant it is often not clear whether the term "Dowitcher" was intended to refer to a particular species or to the genus as a whole. Furthermore, because of overlapping characteristics, it is often extremely difficult to identify the *Limnodromus* complex to the species level -- if indeed there is a reliable way to identify Dowitchers in the field. In many cases the observer probably assigned the species name on the basis of which form had been most commonly reported in the past. Apparently only one Tennessee record has been based on specimens (Migrant 10:57). It would have been safer to place almost all records under the generic heading only, however, in cases where a specific name was given or implied, I have referred to these records under the appropriate species headings below. In the three-year indices that have appeared in The Migrant, unspecified Dowitchers have been indexed in the following ways: all placed under the Long-billed Dowitcher, all placed under the Short-billed Dowitcher, all placed under both species headings, and most recently, all omitted entirely. For this reason, it is quite possible that I have overlooked a few records. 10:16,57.11:76.12:58.21:6.22:71.23:24,27.24:34,36.26:10.28:41,59.29:31,45,48,49,51.31:58.32:3,4.33:12,13,24,26,47,48,51,52.34:7,54.35:1,15,64.36:18,95.37:25,57.38:67,98.39:31.40:49,92.41:71,85,88.42:68,91.43:76.44:44,52,84.45:101.46:20,56.47:18,76,100.

* Short-billed Dowitcher:*Limnodromus griseus.* 6:52.7:67,68.10:16,57.19:62.26:10.31:69.32:3,4.33:12.34:31.35:1.36:18.38:30,32,47.40:15,88.41:88.42:48,94.43:1,53,75,76,102.44:7,45,102,104.45:67,78,101.46:17,19,22.47:21.

* Long-billed Dowitcher:*Limnodromus scolopaceus.* 8:74.10:16.16:45.28:7.35:1-6.36:18.38:2,3.40:54.41:3.42:68,91.43:79,98,102.44:7.46:68.47:21.

Stilt Sandpiper:*Micropalama himantopus.* 4:19,36.6:12,52.7:17,68.8:58,73.10:57.11:66,76.12:71.15:55.19:62.20:69.21:6.22:71.29:27,28,31,48,49,51.30:35,37.31:31,48,58,69.32:43.33:24,26,48,52.34:9,49.35:61,101,106.36:18.37:20,85.38:67,93.41:85,88.42:68,69,91,92,94.43:1,27,50,75,76,79,98,100,102.44:7,84,86,99,100,102.45:101.46:20,21,22,56,80,88.47:18,21,76,100.

* Buff-breasted Sandpiper:*Tryngites subruficollis.* 15:76.23:47.24:39.25:52.26:11.30:35.32:18.34:57.37:56,81.41:3,65,85,88.42:91,92,94.43:98.44:7,43,99,100.47:18,21.

* Marbled Godwit:*Limosa fedoa.*44:40.45:52,95.47:21.

* Hudsonian Godwit:*Limosa haemastica.*42:58,66.

* Ruff:*Philomachus pugnax.*43:86.

* American Avocet:*Recurvirostra americana.* 19:73.21:6(Alabama).26:11,50.30:35.32:3(Arkansas).38:101.39:93.41:76,85,88.42:88,91.43:23,100.45:67,68.46:19,44,60.47:18,48.

* Red Phalarope:*Phalaropus fulicarius.* 15:73.30:55,56.34:31,92.35:94(date should be Sept. not Oct.).37:15.39:13.41:85,88.43:2.44:23.

* Wilson's Phalarope:*Steganopus tricolor.* 3:28.6:34,52.10:15,57.15:55.16:45.25:23.34:28.36:68.37:58.40:65.41:85,88.42:59,68,92,94.43:100.44:99,102.46:20,22,56,88.47:18.

* Northern Phalarope:*Lobipes lobatus.* 30:55.41:39,66.45:96.46:90.47:94.

* Glaucous Gull:*Larus hyperboreus.* 40:12.43:21.

Herring Gull:*Larus argentatus.* 2:5,14.3:7,10,11,14,27,48.4:5,21.5:8,14.6:7,18,31,35,50,92.7:11,20,31.8:7,8,16,19,40.9:7,12-14,67.10:3,4,12,29,32,74.11:21,116.12:7,17,62,63.14:74,75.15:28,70,71.16:10,13,34,59.17:64,69.18:55,57,58.19:2,67,70.20:31,61.21:15,26,60.22:19,27,66.23:66,69.24:13,17,36,40,78.25:19,29,77.26:60,62.27:5,32,72.28:7,10,11,14,61,64,65,68.29:21,31,53,70.30:22,34,65.31:18,31,69,72,75.32:9,30,43,69.33:10,29,68.34:9,13,31,50,54,79,83,89.35:15,19,40,43,102,106,112,122.36:10,12,23,43,62,63,65,88,93,95,99.37:8,9,20,23,24,25,36,65,81,83,85.38:2,17,18,20,21,22,32,51,88,95,98,100,101.39:20,22,23,42,45,66,77,93.40:12,20,22,45,49,90.41:8,22,36,47,85.42:9,37,47,89,91.43:12,18,21,45,53,70,76,89,102.44:7,11,22,32,45,102.45:12,21,24,45.46:8,48,56,88.47:19,21,36,38,48,79,90.

Ring-billed Gull:*Larus delawarensis.* 2:5,14.3:7,10,48.4:5,21.5:8,64.6:7,31,38,50.7:11,31,99.8:8,19,64.9:7,12,13,96.10:6,29,74.11:21,49.12:7.13:19,62.14:74,75.15:70.16:10,13,34,47,59.17:24,64,69.18:55,57,60.19:3,67,70.20:31,35,61,67.21:6,12,15,26,35,60,75.22:19,27,30,66.23:14,27,30,57,59,69.24:13,16,36,40,78.25:23,29,75,77.26:28,59,62.27:5,32,72.28:10,11,14,23,60,65,68.29:6,8,21,31,53,70.30:16,22,34,65.31:18,31,39,44,69,75.32:9,30,51,69.33:10,14,18,29,68.34:9,12,13,31,37,51,54,72,77,79,83,89.35:15,18,19,40,41,43,46,102,104,106,112.36:8,10,11,12,18,43,62,65,66,72,88,94,95,96,98,99.37:6,8,9,20,23,25,36,65,81,83,84,85.38:2,18,20,21,22,32,48,51,54,55,88,95,98,102.39:11,20,21,22,23,31,42,43,45,66,77,93.40:20,22,49,68,70,75,76,77,90.41:8,22,36,43,47,85.42:9,37,40,47,68,72,89,94.43:12,18,21,23,25,45,53,70,76,79,89,102,103.44:7,11,23,27,45,80,102.45:12,24,45.46:8,22,24,48,56,68,70.47:17,21,36,48,78,79,82,90.

* Laughing Gull:*Larus atricilla.* 4:8,47.6:50.9:68.22:30.26:25,28.31:31.32:41,51.34:75.38:48,61.39:10.40:92.42:47,89.43:75,76,89,93.44:7,26.45:42,45,46.46:81.

* Franklin's Gull:*Larus pipixcan.* 20:67 (Arkansas).27:16.28:68.31:69.33:10.34:50.40:76 and 77(Arkansas).41:83.42:19.43:75.44:7,26.45:21.

Bonaparte's Gull:*Larus philadelphia.* 3:48.6:50.7:31.8:29.10:29.15:69.19:71.20:31.21:61.22:71.24:36.26:25,26,28,49,64.27:16,68,70,71,72.28:61.29:21,53.30:34,65.31:31,75.32:5,42,49,66,69.33:10,13.34:50,72.35:15,16,40,41,43,102.36:8,18,43,63,65,66,88,94,95.37:6,8,20,25,65,80,81.38:18,20,48,51,95,98.39:11,20,22,45,93.40:20,23,46,49,75,76,77,90.41:5,8,21,23,36,43,46,83.42:9,11,19,21,37,44,47,48,71,85,92.43:12,17,25,27,45,49,51,53,55,70,72,73,89,93,100.44:7,11,23,26,45,51,52.45:12,21,24,26,45,78,79.46:8,20,22,45,46,56,65,66,68,71.47:19,36,48,50,78,90.

* Black-legged Kittiwake:*Rissa tridactyla.* 46:81.

Forster's Tern:*Sterna forsteri.* 5:31.6:31,50.10:3.12:58.15:30.21:61.25:27,29.28:58,59.29:21,28,31,54.30:14,22,24,34.31:46.32:31,41,42,43.33:10.34:9,31,49,51,75.35:41,43,46,63,102.36:62,69,95.37:25,36.38:32,47,66,67,98.39:93.40:75,76,77,90,92.41:35,36,85,88.42:37,68,91,92.43:51,53,75,76,98,100,102,103.44:7,45,52,87,100,102.45:45,103.46:19,20,22,24,56,61,66,68,88.47:6,19,21,75,76,90,100.

Common Tern:*Sterna hirundo.* 4:15.5:27.6:17,31,50.7:54.10:29.12:59.13:49.16:45.20:31.21:6,61.22:18.23:66.24:60.25:29.26:29,48.28:23,41,59.29:21,53,56,58.30:14,22,24,38.31:31,69.32:43,51.33:10,29,49,51.34:9,54,72.35:39,46,63,65,106.36:68,69,93,95,96,99.37:55,83.38:32,46,48, 54,67,102.39:64,93.40:35,92.41:36,88.42:47,69,89,91,92.43:45,51,53,75,76,98,100,102,103.44:7,9,11,45,52,84,87,100.45:45.46:22,56,90.47:6,21,23,78,90,101.

* Sooty Tern:*Sterna fuscata*. 5:46.

Least Tern:*Sterna albifrons*. 2:12,22,23,24.3:14,37.4:15,36.5:28,40,42,60.6:51,52,70.7:43,54,67,68.8:50,58,60.9:1,28,64.10:29,57.11:66(*S.a.browni*).12:24,32.13:34,54.15:28.16:45.18:62.19:62.20:35.21:6,61.22:12,45.23:6,27,40.26:28.27:32,51.28:59.30:14,34.31:47.32:31.34:22.36:68.37:55.38:47,67.39:4,63,88,93.40:44,46.41:69,88.42:4,68,91,94.43:75,76,98,102.44:7,78,84,99.45:45,101.46:22.47:4,82.

Caspian Tern:*Sterna caspia*. 8:50,73.9:66,95.10:57.11:103.20:67.21:50,51.22:12.23:32,55.25:15.26:47.27:67.28:26,42,61.29:6,54.30:14.32:4,18,19,30,49.33:10.34:37,51,54,72,79.35:63,65,104,106.36:95.38:67,98.39:66,93.40:92.41:85,89.42:68,71,91,92,94.43:45,48,51,53,79,90,98,100,102.44:7,26,45,52,99,102.45:43,52,76,78.46:20,56.47:19,21,23,78,87,91,101.

Black Tern:*Chlidonias niger*. 2:23,24.3:14.4:15,36,39.5:27,60.6:31,37,50,52.7:53,67,68,72.8:22,58,60.9:28,30,64,67,69.10:29,57.12:26,36,58.13:43,49.14:56.15:30,55.18:62.20:17,31.21:6,50,61.22:12,18,24,27.23:6,27,54.24:56,58.25:29,53.26:29,48.27:32,51,67.28:41,59,61.29:21,31,53,54,55,56,58.30:34,37.31:44,46,69.32:3,18,19,30,43,49,51.33:10,47,49.34:31,50,51.35:15,104.36:68,69,95,99.37:20,55,85.38:32,48,51,66,67,68,93.39:12,31,66,93.40:68,70,75,76,77,90,92.41:36,71,85,88.42:37,68,69,71,94.43:75,76,79,98,102.44:7,46,87,100,102.45:41,43,78,103.46:17,19,20,22,28,57,61,87,90.47:19,21,23,78,91,101.

* Black Skimmer:*Rynchops niger*. 43:63.

* Band-tailed Pigeon:*Columba fasciata*. 45:49.

Rock Dove:*Columba livia*. (The "Pigeon" is often not considered a legitimate part of Tennessee's avifauna; this accounts for the paucity of records for this common species) 6:93.17:48.29:21,36,67,70.30:22,65.31:31,39,59,72,75.32:31.37:35.38:2.41:66.42:5,60,74,79.45:2,5,8,12,43,49,50.46:8,57.47:4,36,82,85,91.

Mourning Dove:*Zenaida macroura*. 1:15.2:1,4,6,14,26,28.3:3,7,14,42.4:5,15,27,37.5:2,6,8,19,22,24,30,46,51.6:7,66,68,82,91.7:2,3,11,33,34,47,59,70,71,102.8:8,25,85.9:7,16,17,19,25,26,44,46-49,69-71,92.10:3,5,6,11,13,52,58,61,75,78.11:21,23,31,30 and 36(*Z.m.marginella*),50,54,56,64,73,77,80,112.12:6,7,9,17,18,32,37,45.13:17,19,23,34,36,44,47,62,75,76.14:2,11,12,21,47,53,74.15:9,12,16,26,32,57,70,77.16:34,58,59,65,66.17:11,24,48,63,64,69.18:26,55,57.19:5,11,12,22,38,67.20:1,2,3,4,5,6,7,8,9,30,35,61.21:13,14,26,41,61,75.22:12,14,15,16,19,24,46,48,61,62,65,66.23:6,9,11,13,14,27,47,52,59,68,69.24:13,14,15,16,36,57,60,78.25:17,29,77.26:16,29,48,62.27:5,10,19,32,49,72.28:8,23,27,32,49,62,65,69.29:21,31,53,54,57,68,70.30:16,22,34,37,61,65.31:13,14,17,22,31,39,46,47,48,59,69,75.32:6,31,67,69.33:7,10,14,16,29,60,68.34:10,15,31,66,74,83,86,90.35:39,46,64,92,96,112.36:8,9,10,43,72,81,88,92,97.37:29,36,61,62,65,71,72.38:2,9,10,13,32,41,42,65,88.39:4,5,8,19,20,31,34,50,77,85.40:6,26,35,46,90.41:8,36,56,57,66.42:9,16,37,44,60,74,79.43:12,25,45.44:11,14,30,46,85,101.45:2,3,5,7,8,12,24,30,43,58,99,103.46:8,28,57,71.47:3,4,36,68,82,83,84,85,91.

* Passenger Pigeon:*Ectopistes migratorius*. 3:1.4:18,24.8:65.11:117.43:63.44:62.45:82,83,84.

* Ringed Turtle Dove:*Streptopelia risoria*. 37:73.42:60.43:71.

* Ground Dove:*Columbina passerina*. 13:50 (Mississippi).23:3(*C.p.pallescens*) Mississippi.40:6.47:68.

* Carolina Parakeet:*Conuropsis carolinensis*. 1:14.8:65.11:61.43:63.44:64.

* Monk Parakeet:*Myiopsitta monachus*. 44:82.

* Red-crowned Parrot:*Amazona viridigenalis*. 24:10(Mississippi).30:29(escaped bird).

Yellow-billed Cuckoo:*Coccyzus americanus*. 2:12.3:14.4:15,36.5:2,7,19,22,42,51.6:2,3,68,70.7:1,35,53,60,102.8:25,57,76.9:13,24,97.10:3,32,52,67.11:56,64,73.12:32,35.13:20,22.14:11,43,53,55,57.15:22,26,27,28,32,57.16:34.17:24,48.18:26.19:5,12,22,38.20:6,7,30,35,51.21:26,53,61,81.22:13,17,24,49,60,62.23:5,26,27.24:36,56.25:15,29,52.26:29,64.27:5,33,52,67.28:23,26,27,56.29:21,31.30:10,22.31:31,39,46,59,64.32:5,31.33:7,10,29,49,59.34:15,31,34,66,75.35:46,96,103,104.36:57,65,66,72,81,82,94,95,98,99.37:23,25,29,36,46,62,81,82,84,85,88.38:13,32,47,48,51,53,54,94,98,102.39:5,26,31,43,67,90,93.40:26,35,46,79,90,92.41:36,43,56,79,89.42:16,37,48,74,79.43:45,51,77,98.44:4,6,46,52,85,100,101,102.45:2,5,6,7,21,43,58.46:19,20,29,50,57.47:4,9,19,48,76,79,82,85,91.

Black-billed Cuckoo:*Coccyzus erythropthalmus*. 5:51.6:77.7:18,35,49,58,101.9:98.10:3,4.11:56.13:43.14:36,39.15:28.16:34.17:48.18:26,34.19:22,38.20:30,35.21:25,50,61.22:24,30,60,62.23:3,27.24:17,36,74.25:29,67.26:29,48,50.27:5,31,32,67.28:23.29:7,21,28,31,58.30:22.31:31,63,64.32:12,14,31,47,53.33:10,29,48.34:15,28,31,56,66,73.35:46,61,63,96,102.36:65,66,72,82,95,97,99.37:20,23,24,25,29,36,46,81,82.38:32,43,51,54,55,68,95.39:26,31,64,66,67,90,93.40:26,32,35,46,79,90,92.41:36,85.42:37,44,48,68,69,71,74,78,80.43:45,52,53,76,94,102.44:46,84,87,100.45:2,5,43,58,101,103,104.46:18,20,24,57,65,68,88,91.47:6,19,21,78,82,85,91,100,103.

* Roadrunner:*Geococcyx californianus*. 38:65 (Arkansas).

* Groove-billed Ani:*Crotophaga sulcirostris*. 30:7,9.

* Barn Owl:*Tyto alba*. 3:14,29.4:15,27,47,49.5:45,51.6:12,14,50,68,72,93.7:49.8:86.9:70.10:3,6,13,47,76,77.11:4,22,82,97.12:34,73.13:46,57,62,63.14:18,43,51 (Mississippi),57,74,75,80.15:18,22,74.16:12,59,60.17:64.19:38.20:65.21:13,26,61.22:24.23:27,42,54,69.24:9(Mississippi).25:16,29.27:5,72.28:7,23,65.29:7,21,59,71.30:22,24,34,65.31:31,75.32:7,15,31,65,69.33:29,50,51,68.34:52,73,74,81,83.35:41,46,49,62,109,112.36:68,72.37:9,55,65,83.38:20,51,53,88,98,100,102.39:21,23,31,45,66,67,77,93.40:23,35,49,70,92.41:8,35,37,46,71,88.42:9,21,38,47,71,92,94.43:12,27,45,51,53,76,79,100,102.44:11,26,46,52,87,100,102.45:12,24,43,77,78,103,104.46:8,22,29,46,57,68,70,90.47:19,21,23,36,46,48,50,76,78,79,91,93,100,101,103.

Screech Owl:*Otus asio*. 2:3,5,25.3:7,14,27,42.4:5,15,21,27,39,46,47,49.5:2,7,8,19,51,63.6:8,50,72.7:3,4,11,24,47,54.8:2,8.9:2,7,16,17,32,48,52,70.10:3,5,6,8,14,42,45(*O.a.floridanus*),55.11:22,23,31,45,56,66,74.12:2,7,9.13:17,19,38,62.14:5,43,74.15:22,70.16:58,59.17:24,61,64,68.18:25,26,55,57.19:22,38,67.20:30,35,61.21:12,26,61,75.22:24,28,65,66.23:5,27,69.24:1-5,36,77.25:29,77.26:29,62.27:5,33,72.28:23,27,30,65,70.29:21,31,71.30:22,31,65.31:31,75.32:14,16,31,67,69,72.33:29,68,71.34:31,52,55,56,73,79,83.35:46,112.36:11,43,72,88,92,97,98.37:9,24,37,46,65,84.38:9,13,32,53,88,102.39:32,77.40:24,35.41:8,37,57,67.42:9,31,38, 47,85.43:12,15,16,45,70,89.44:11,13,14,43,46,75,78.45:2,12,43,78,82,83,84,99.46:8,29,57,68,70.47:36,43,82,91.

Great-Horned Owl:*Bubo virginianus*. 2:3,4,5,7,27,28.3:14,42.4:5,10,27,47,49.5:2,8,28,30,42,51.6:8,50,52,92.7:1,3,11,47,54.8:8,25,27,57.9:7,23.10:3,5,6,24,42,47,74,75.11:14,16,19,22,23,32,54,56.12:7,70.13:17,19,24,30,62,69,76.14:12,37,40,48,74,75.15:18,22,26,27,28,70,71,75.16:12,59.17:24,34,64.18:17,24,55,57.19:12,38,62,67.21:14,26,61,75.22:12,13,63,66.23:12,41,69.24:17,34,77.25:29,77.26:62.27:5,72.28:11,23,29,65,70.29:21,31,71.30:22,65.31:14,75.32:31,44,69,72.33:8,16,29,68.34:31,52,75,77,83.35:38,39,46,62,104,106,112.36:17,43,44,69,72,88,97,98,99,103.37:24,25,37,40,55,65,78,83,85.38:9,15,21,22,32,54,65,88,98,100.39:23,32,42,45,66,77,89,93.40:20,23,35,46,49,88,93.41:8,23,24,37,43,57,69.42:9,19,38,94.43:8,12,16,25,46,70,89.44:11,14,43,46,51,79.45:2,5,12,41,43,99.46:8,24,29,57,71.47:4,36,45,46,48,50,79,91.

* Snowy Owl:*Nyctea scandiaca*. 2:7.8:35.26:12.27:74.32:1.35:71.44:78.

* Burrowing Owl:*Athene cunicularia*. (all Mississippi records, except one from Arkansas)10:45.11:22,36.12:8.32:16.34:7(Arkansas).

Barred Owl:*Strix varia*. 2:3,5,28.3:7,14,42.4:5,47.5:8,42,51,65.6:8,36,50,71.7:11,47,54.8:8,17,37.9:7,44,52,96.10:5,6,14,17,25,33,42,52,55.11:22,23,31,36(*S.v.georgica*),56,73,74.12:7,9,18.13:17,19,38,62,64,69.14:2,13,26,37,39,40,74,79.15:8,22,28,63,70.16:12,23,59.17:21,24,55,64,69.18:26,49,55,57.19:12,22,38,67,70.20:35,62.21:26,61,75,78.22:24,67.23:5,27,69.24:36,77.25:29,77.26:26,29,39,62.27:5,33,72.28:23,65.29:9,21,31,71.30:16,22,31,66.31:31,75.32:31,49,69.33:29,35,65,68.34:22,31,52,79,83.35:46,106,112.36:12,17,61,65,72,88,92,100.37:25,37,55,56,65,85.38:20,32,47,55,60,88.39:5,32,42,48,66,77,93.40:23,35,51,70.41:8,37,43,46,47,57,69,88.42:9,21,38,55,85,94,95.43:12,43,46,53,55,70.44:11,13,26,27,46,54,102.45:2,12,26,41,43,68,69,79,104.46:8,10,11,24,29,46,48,57,70,71,90,91.47:4,24,36,50,80,82,85,91.

* Long-eared Owl:*Asio otus*. 6:14,39.11:4.15:15.17:12.25:15(Arkansas).26:33.29:59.30:16.36:21,43,103.38:91.39:79.41:67.43:27.44:23.46:70,71,81.

* Short-eared Owl:*Asio flammeus*. 5:10.8:76.12:15,16,17,35.13:17.14:51,66,74.15:17.20:62.23:10,11,74.24:9,14,30,78,80.25:16,23,77.26:24,62,64.27:16,17,33.28:7.29:7,21.32:3,7.34:7.36:43.37:65.38:94.39:42.42:9,18,43.43:12,14,25.45:12,20,21,24,76.46:29,44,71.47:46,48.

* Saw-whet Owl:*Aegolius acadicus*. 7:19.11:4.17:60,67.25:13.28:23,28,34.36:15.40:16,51,70.42:48,55.43:17,55.44:46,88.45:26.46:57.47:103.

Chuck-will's-widow:*Caprimulgus carolinensis*. 2:6,14.3:14.4:15,39.5:2,45,51.6:33,72.7:1,3,6,49,71.8:27,42.10:3,32,52.12:22,32,37,45,59.14:11,26.15:22,26,27,28,30.16:38.17:24,27,46,47.18:26.19:5,22,38.20:31,35.21:26.22:23,24.23:5,25,27,53.24:36.25:29,56.26:29.27:5,33,53,63,64,65,81.28:21,23,46.29:21,31,58,59.30:22,31,36,53.31:31,43,56,57,58,80.32:31.33:29,35,36,51.34:31,35,51,54,95.35:41,43,46,97-99.36:12,62,64,65,66,68,69,72,75,95.37:23,24,25,37,56.38:32,47,51,54,55,67,68.39:4,5,32,34,42,45,48,67,93.40:35,49,51.41:37,47,57,85.42:38,44,74,94.43:8,46,48,53,60.44:46,78,79,88.45:2,5,6,43,79.46:29,57,70,81.47:4,5,78,80,82,85,91,103.

Whip-poor-will:*Caprimulgus vociferus*. 2:11.3:14.4:15,39.5:7,18,22,52.6:3,33.7:2,7,35,46,54.8:25,58.9:44.10:3,33.11:56.12:36,59.13:43.14:26,61.15:26,28,32.16:34.17:6,24,28,46,47.18:26.19:5,13,22,38.20:30,32,33,35.21:12,26,61.22:24,60,62.23:3,5,26,27,53.24:36,55.25:27,29,34,55.26:29,47.27:5,30,33,63,64,65,81.28:8,21,23,27,44,56.29:21,31,59.30:22,31,36.31:31,43,44,56,63,64,80.32:31,41,45,46.33:29,35,49,51,55.34:31,50,71,92,96.35:46,63,96,100,101,102.36:53,62,63,64,65,66,69,72,79,80,107.37:23,24,25,29,37,42,55,82,87.38:32,41,48,51,54,55,66,68.39:4,5,32,34,42,43,45,48,67,85,89,93.40:19,26,35,45,46,49,51,66,79.41:37,43,47,69,85.42:38,44,72,74,79,80,94.43:46,51,53,80,102.44:46.45:2,3,5,6,7,20,43,67,76.46:57,65,70,88.47:19,78,82,85,91.

Common Nighthawk:*Chordeiles minor*. 2:11,14.3:14.4:15,38.5:2,7,19,27,41,44,48,52.6:3,72,85.7:2,7,35,46,47,49,57,101.8:25.9:2,19,46,66.10:3,33,42,47,52,67,75.11:56,66(*C.m.chapmani*),78.12:22,32,45,59.13:25,37,56.14:11,37,52,56.15:23,26,28,30,32,33.16:45,46,47.17:4,5,24.18:26.19:11,12,22,39.20:30,35.21:3,6,26,41,53,61.22:24,47.23:3,5,27,55,56.24:36,59.25:12,17,29,56.26:29,50.27:5,10,19,33,47,50,52.28:12,21,23,32,42,67,68,71.29:21,31,54,56.30:22.31:10,31,39,58,59,69,80.32:9,31,45.33:12,29,47.34:8,31,50,72,73,74,75,76.35:38,41,46,61,65,102,104,106.36:44,63,64,65,66,69,72,94,95,97,98,100.37:20,23,24,25,27,29,37,53,81,83,84,85.38:32,47,48,51,54,55,66,94,95,97,98,102.39:4,26,32,34,43,45,48,90,93,96.40:35,46,49,90.41:37,43,56,69,85,88.42:38,44,47,48,74,92,94.43:22,25,46,51,53,78,100,102.44:46,50,53,100,102.45:2,43,76.46:19,20,22,24,29,46,57,62,63,66,71.47:4,21,82,91.

Chimney Swift:*Chaetura pelagica*. 1:18.2:12,14,24.3:14,34,48.4:8,15,40,49.5:2,7,13,19,22,28,43,48,52,59,60.6:3,68,79,90,93.7:2,3,7,35,46,49,71,75,79,84,88,100,103.8:25,36,52,70,76,79,85,87,88.9:2,44,46-49,65,66,71,72,77-86,97.10:3,32,38,47,52,67,74,75,81.11:38-44,56,73,77,82,91,104,105,115,116.12:26,32,37,46,57,63,69,70,76.13:37,44,68,71,75.14:6,11,19,47,52,53,60.15:3,17,20,26,28,30,37-55,57,59,60,63.16:2,3,11,12,13,14,31,32,34.17:6,22,24,29,31,32,37,55,67.18:26,62.19:5,22,39.20:24,30,35.21:3,7,17-21,26,61.22:13,25,28.23:5,27.24:37,58,59.25:15,29,55.26:29,38.27:5,33,50.28:2,8,12,23,32,36,61.29:21,31,53,55.30:17,22,29,34,39.31:31,39,47,48,59,69.32:31,42,61.33:3,7,10,29,53,54.34:31,33,71,72.35:39,41,43,46,63,102,104,106.36:31,32,63,64,65,66,72,92,93,94,95,96,97,98,100.37:20,23,24,26,27,37,81,83,84,85.38:2,32,48,51,53,54,55,95,98,102.39:5,7,8,32,34,42,43,45,90,93,96.40:35,46,49,51,90.41:37,43,52,56,85,89.42:38,44,48,74,79,94.43:46,51,53,77,102.44:26,46,53,79,85,102,104.45:2,5,7,43,78.46:22,24,29,57,63,65,66,68.47:3,4,75,78,80,82,83,85,91.

Ruby-throated Hummingbird:*Archilochus colubris*. 2:1,11,14.3:14,27,30,34,35,49.4:15,36,37.5:1,2,7,22,52,64.6:3,72,86.7:2,6,35,46,49,84,101.8:25,76.9:2,44,48,66,97.10:3,52,66,70,76.11:34,56,73.12:32,39,49,75.13:48,68.14:37,47,53.15:23,26,63.16:34,42,47.17:6,24,55.18:26.19:5,12,22,39.20:29,30,35.21:7,24,26,53,61.22:25,27,49.23:5,25,27.24:37,66-68.25:29,51.26:29,38,44,46.27:5,30,33,49.28:17,21,23,27,36-39,45,70.29:22,31,54,57.30:22.31:31,39,47,69.32:14,31.33:29.34:8,9,23,31,50,51,52,73.35:16,38,39,41,43,46,102,104,106.36:44,65,66,72,92,93,94, 95,96,97,98,100.37:20,23,26,37,46,55,81,82,83,85.38:13,32,36,47,48,51,53,54,55,98,99.39:32,34,43,67,93.40:10,19,35,46,51.41:23,37,43,56,85.42:19,38,44,74,77,79.43:46,53,77,79,89.44:46,79,85,102.45:2,5,8,21,43,76.46:30,57.47:4,5,21,29,78,82,85,91.

Belted Kingfisher:*Megaceryle alcyon*. 2:4,6,14,25.3:7,14,42,49.4:5,15,27.5:7,8,19,22,42,52.6:8.7:5,11,35,53,60.8:8,22,25,60,76.9:2,7,16,17,44,53.10:3,5,6,8,13,33,43,81.11:22,23,27,56,103,112.12:7,9,32.13:17,19,62,76.14:74.15:26,70,77.16:34,59.17:24,64,69.18:26,55,57.19:3,12,22,39,67.20:30,35,62.21:26,61,75.22:25,67.23:5,27,59,69.24:37,77.25:26,29,56,77.26:16,29,62.27:5,19,33,72.28:23,60,61,65.29:22,28,29,31,53,71.30:16,22,34,66.31:14,16,31,69,75.32:31,69.33:3,10,29,68.34:31,83.35:46,112.36:10,43,72,88,92,97.37:37,65,82.38:2,9,10,32,88.39:32,34,77,82.40:20,26,35,77.41:8,37,56.42:9,38,74,79.43:12,43,46,51,89.44:11,14,46.45:2,5,7,8,12,43.46:8,30,57.47:4,36,43,82,85,91.

Common Flicker:*Colaptes auratus*. 1:15.2:2,4,6,14,27.3:7,9,14,27,42,44,46.4:2,4,5,15,21,24,27.5:2,8,18,22,30,46,52.6:8,83.7:2,8,11,35,84.8:8,25,80,83.9:2,7,16-19,44,46,47,50,69-71,90,92,96.10:3,5,6,32,52,67,81.11:22,23,30(*C.a.borealis*),31,50,57(*C.a.luteus*),64,67(*C.a.luteus*),73,75,112.12:6,7,9,37.13:17,19,27,48,54,55,62,75,76.14:1,2,4,5,11,24A,40,42,45,53,59,67-70,74.15:8,9,12,16,21,26,28,35,57,63,70,77.16:12,30,34,42,59.17:24,27,55,64,69.18:11,12,26,55,57.19:5,11,13,22,39,67.20:13,28,30,35,62.21:25,42,61,75.22:16,18,25,67.23:6,9,13,27,59,70.24:37,78.25:29,77.26:16,29,38,62.27:5,33,72.28:11,12,23,61,65.29:22,31,53,71,73.30:16,19,22,60(*C.a.cafer*),66.31:16,31,39,59,64,69,75.32:31,43,69.33:10,27,29,42,68,71,72.34:12,15,31,66,74,83,90.35:46.36:6,10,11,37,43,57,61,64,72,81,88,92,93,97,98.37:9,29,37,65,84.38:2,9,13,21,22,32,88.39:7,32,35,77.40:26,33,35,79.41:8,37,56,85.42:9,38,74,79,80.43:12,46,69,100.44:11,14,30,46,78.45:2,5,12,30,43,58.46:8,30,50,57,73,74.47:4,36,50,82,85,91.

Pileated Woodpecker:*Dryocopus pileatus*. 1:15.2:4,6,27.3:5,7,14,40,41,42,49.4:2,5,15,24,27,39.5:4,7,8,22,42,52,58.6:8,36,50,71,72,73.7:2,3,11,35.8:8,17,25.9:7,16,17,44,52,71.10:3,5,6,9,27,43,52,60,63,81.11:22,23,31,57.12:7,9,15,32.13:17,19,33,35,42,62,75,76.14:4,10,11,15,19,59,60,74.15:8,16,18,23,26,28,33,63,70.16:11,12,59.17:10,19,24,27,43,46,55,63,64,70.18:8,26,55,57.19:5,8,22,39,67.20:30,35,62.21:26,61,75.22:15,25,28,48,49,67.23:5,9,13,26,27,59,70.24:13,37,78,83.25:29,54,77.26:29,39,62.27:5,33,46,47,72.28:23,65.29:22,31,71.30:8,16,22,34,63,66.31:17,31,39,51,59,73,75.32:31,69,72,73.33:27,29,68,71,72.34:31,83,88.35:16,46,110,112.36:43,72,86,88,91,92,93,97.37:34,37,65,68,87.38:2,9,10,21,32,37,57,58,59,88.39:32,35,77,85.40:33,35.41:8,37,56.42:9,38,74,77,79,85.43:8,12,46.44:11,43,46,67.45:2,5,6,7,12,41,43,83.46:8,30,57.47:4,36,82,85,91.

Red-bellied Woodpecker:*Melanerpes carolinus*. 1:15.2:4,6,14.3:7,14,27,41,42.4:5,15,27,40.5:8,42,52.6:8,68,71.7:10,11.8:8,26.9:7,15-17,48,70.10:3,5,6,27,32,43,52,81.11:22,23,57.12:7,9,16,33.13:17,19,62,75,76.14:11,46,53,59,74.15:23,28,33,57,70,77,78.16:12,34,59.17:10,24,47,63,64,69.18:8,26,55,57.19:5,12,22,39,67.20:30,35,62.21:26,61,75.22:16,25,67.23:5,9,13,26,27,59,68,70,74.24:13,37,78.25:16,29,54,77.26:16,29,62.27:5,33,72.28:23,65,68.29:22,31,51,71.30:10,16,22,34,41,66.31:31,69,75.32:31,69.33:14,27,29,68.34:11,23,31,54,75,77,83,90.35:46,65,104,113.36:10,11,43,69,72,88,92,98.37:9,24,37,46,65,84.38:2,13,21,22,33,54,88.39:4,5,32,35,77,82,85,96.40:33,35,51.41:8,37,56.42:9,14,16,38,75,79.43:12,46,77.44:11,14,46,85.45:2,5,6,7,8,12,43,53.46:8,19,30,57.47:4,36,82,85,87,91.

Red-Headed Woodpecker:*Melanerpes erythrocephalus*. 2:4,6,14.3:7,14,27,42.4:5,16,46.5:2,8,10,18,22,48,52.6:8,14,83.7:10,11,26,35,101.8:8,17,18,26.9:6,7,16,18,70,71.10:3,5,6,9,32,43,52,67.11:22-24,26,35,57,64,75.12:7,17,33,37.13:17,19,24,33,44,47,62,64,73.14:38,46,53,56,59,68,74.15:8,23,28,35,57,70,77.16:32,58,59,60.17:24,64.18:26,55,57.19:5,11,12,22,40,67.20:30,35,62.21:26,61,75.22:16,17,25,27,43,48,67.23:27,70,73.24:14,16,37,59,78.25:29,77.26:29,49,62.27:5,20,33,72,78,81.28:23,65,68,71.29:22,31,71.30:16,22,36,39,66.31:3,31,47,51,59,76.32:4,19,31,69.33:29,49,50,51,55,63,66,68.34:11,23,31,51,52,54,66,77,81,83,89.35:8,18,41,46,61,65,104,106,113.36:6,7,11,43,65,66,69,72,88,92,98,100.37:7,9,20,24,27,29,37,54,65,84,85.38:6,13,20,22,33,54,55,68,88,95,101,102.39:23,32,35,43,67,77,85,89,90.40:23,36.41:8,23,37,43,56,85.42:9,38,75,84.43:12,15,27,43,46,53,79.44:11,14,15,26,46,53,80,98,100,104.45:2,10,12,41,43,79,103.46:8,22,30,46,57,68,70,88.47:4,24,36,80,82,91.

Yellow-bellied Sapsucker:*Sphyrapicus varius*. 2:4,27.3:7,42.4:6,16,27.5:8,27.6:8.7:11.8:8,14.9:7,16,17,43,44,96,98.10:3,5,6,9,42,81.11:22,23.12:7,9,16.13:17,19,44,56,62,75,76.14:14,55,74,75.15:28,63,70,74,77,78.16:12,58,59.17:10,55,69.18:26,55,57.19:8,40,67.20:30,62.21:62,75.22:15,28,67.23:27,59,70.24:78.25:16,26,29,37-41,77.26:29,51,62.27:6,49,72.28:12,13,56,65.29:22,31,71.30:11,41,66.31:16,31,63,64,76.32:31,70.33:3,6,29,68.34:8,13,31,74,77,83,88,90.35:38,41,43,46,96,106,113.36:10,11,43,57,63,65,66,72,81,88,95,98,100.37:9,23,26,29,37,46,65,82,83,84,85.38:9,22,33,48,51,54,55,88,95,98,100,101,102.39:26,32,43,48,63,66,77,82,90,93,96.40:26,36,46,49,70,79,90.41:8,37,43,71,85,89.42:7,9,16,38,44,92.43:12,46,79,80.44:6,11,14,46,51,53,59,76,102,104.45:12,43,104.46:8,19,57.47:16,17,36,50,91.

Hairy Woodpecker:*Picoides villosus*. 1:15.2:4,6.3:7,14,27,43.4:6,16,27.5:2,8,19,22,52.6:8.7:11,35,59,84.8:8,26.9:2,7,16,17,44,47,48,70,71,92.10:3,5,6,33,43,52,60,67,81.11:6,22,23,31,57,73,112.12:7,9,33,35.13:17,19,55,62,76.14:6,11,21,74.15:8,23,28,33,63,70,77.16:33,59.17:6,24,47,55,64,67,69.18:8,26,55,57.19:22,40,67.20:30,35,62.21:26,42,62,76.22:25,28,67.23:5,9,29,70.24:37,78,83.25:27,30,77.26:16,29,38,62.27:6,33,72.28:12,23,45,65.29:22,31,71.30:16,22,41,63,66.31:31,73,76,78.32:31,70,72,73.33:27,29,41,68,71,72.34:31,32,83,88.35:46,65,104,110,113.36:7,11,12,43,57,61,65,72,86,88,91,93,100.37:9,24,37,56,65,69,85.38:9,17,22,33,55,68,88,100.39:32,35,66,77,82,83.40:36.41:8,24,37,52,53,56,57.42:9,38,75,79.43:12,18,46.44:11,46.45:2,5,12,43.46:8,14,30,57.47:4,36,82,85,87,91.

Downy Woodpecker:*Picoides pubescens*. 1:15.2:4,6,14,27.3:7,14,27,41,43,44.4:6,16,27.5:2,7,8,19,35,46,52.6:8,71.7:3,11,35,84.8:2,8,26,48.9:2,7,16,17,44,45 (*P.p.medianus*),47,48,70,71,92.10:3,5,6,33,43,52,60,67,81.11:6,22,23,31,57,73,112.12:7,9,33.13:17,19,48,55,62,75,76.14:4,6,11,21,46,53,74.15:26,28,57,63,

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* Red-cockaded Woodpecker:*Picoides borealis.* 4:39.5:2.7:35,103.8:26.13:33,47.17:13.18:8.19:13,40.26:19.27:18.28:8,9.31:47.32:31,70.33:29,32,40-45.34:25,31,71.35:37,52.36:59,72,75.37:37,39.38:60.39:45,64.40:68.41:3,69.42:44,69.43:2,54,76,79.44:84.47:95.

* Ivory-billed Woodpecker:*Campephilus principalis.* 8:65.11:60.14:19.43:63.44:67.

Eastern Kingbird:*Tyrannus tyrannus.* 1:15.2:11,14.3:14.4:16,36.5:2,18,52.6:3,70.7:3,6,7,35,49.8:26,57,60.9:2,49.10:3.11:49,56.12:33,37,59.13:32,44.14:11,37,39,53.15:28,30.16:34.17:17,18,19,24.18:26.19:5,13,22,41.20:30,35.21:7,24,26,62.22:25,27.23:5,27,32.24:37.25:26,30.26:29,47.27:6,33.28:23.29:22,28,31,34,53,56.30:22,34.31:31,39,69.32:5,31,45.33:10,29.34:31,72,73.35:39,40,41,43,46,55,103.36:63,64,65,66,72,92,94,95,100.37:20,23,24,26,27,37,45,46,54,81,83.38:13,33,48,51,54,55,95,98,99.39:5,26,32,35,42,43,45,48,75,77,81,85,90,93.40:36,44,46,49,51,69,93.41:37,43,56,69,85.42:38,75,79,84,94,95.43:25,46,51,102.44:18,46,53,85,100,102.45:2,5,7,22,43,76.46:20,22,30,57,65,78.47:4,21,78,82,85,91.

* Western Kingbird:*Tyrannus verticalis.* 18:28.25:33.29:28.32:4.38:65(Arkansas).40:44,90.43:98.44:18.

* Scissor-tailed Flycatcher:*Muscivora forficata.* 35:55.36:59.37:59.41:68.43:51.46:65.47:76,99.

Great Crested Flycatcher:*Myiarchus crinitus.* 2:11,14.3:14.4:16.5:2,18,46,52.6:3,20,71.7:2,3,6,8,35,38,46.8:26,48.9:24,44,48,53.10:3,52,60,67.11:54,57,64,65,73.12:33,45.14:11,40,53.15:23,26,30,32,57.16:8,9,34,42.17:24,29,30,56.18:26.19:5,11,22,41.20:35.21:26,62.22:25,28,42.23:5,27.24:37.25:30,51,67.26:29,65.27:6,30,33.28:23,32.29:22,31.30:22,38.31:31,39.32:31.33:29,44.34:23,31.35:43,46.36:63,65,66,72,92.37:20,24,26,29,37,45,46,81.38:13,33,48,51,53,54,55.39:5,32,35,42,48,93.40:36,45,46,49,51,79.41:37,43,56,85.42:38,48,72,75,79.43:46,51.44:5,6,46,80.45:2,5,7,43,79.46:31,57,71.47:4,82,85,91.

Eastern Phoebe:*Sayornis phoebe.* 1:5,15.2:5,6,26.3:7,14,43.4:16,26,27,37,51.5:2,9,19,22,53,59.6:7.7:11,20,35,98,99.8:8,17,18,26,73.9:2,7,19,44,48,50,53,71.10:3,5,6,9,14,50,52,74,81.11:22,23,26,27,57,64,73,103.12:7,10,33,36,37,71.13:19,34,36,44,62,67,76.14:39,48,70-72,74.15:28,30,59,70,71,77.16:14,34,47,59,60.17:24,49,64,65,69.18:25,26,55.19:5,13,22,41,67.20:29,30,33,35,44.21:12,26,62,76.22:25,28,42,67.23:11,26,27,32,68,70.24:14,15,16,17,34,35,37,60,78.25:16,17,27,30,78.26:16,29,47,62.27:6,18,33,72.28:12,17,18,23,27,65,67,70.29:22,29,31,53,57,69,71.30:9,11,16,18,19,22,25,66.31:14,17,18,31,44,69,73,76.32:8,10,31,39,70.33:10,27,29,36,63,68.34:11,23,31,41-49,74,80,84,88. 35:15,31,39,43,46,113.36:9,10,11,43,57,64,72,89,92,93.37:8,10,37,45,46,65,68,84.38:13,20,22,33,53,54,88,95,102.39:5,32,35,77.40:20,24,33,36,46.41:8,37,43,56,57.42:9,38,75,77,79,80.43:12,16,43,46.44:11,22,46,85.45:2,5,8,12,14,43,99.46:8,14,31,57.47:4,36,38,39,82,85,91.

Yellow-bellied Flycatcher:*Empidonax flaviventris.* 7:71.8:2.13:43.14:37.15:55.16:29.18:34.20:11.21:62.22:19,46,60,62.23:25,27,51.25:67.27:10.29:22,28,31.30:15.31:64.32:31,44.33:7,13,51,59.34:15,31,51,56,66.35:46,49,61,96,103.36:56,57,81,94.37:29,45,46,54,85.38:66.39:63,64,90.40:26,70,79,88,90.41:85,88.42:16.43:80,103.44:98,99,100,102,104.46:18,20,67,68.47:9,17,19,21,24,99.

Acadian Flycatcher:*Empidonax virescens.* 2:12.3:14.4:16.5:2,19,22,53,59.6:33.7:6,35,49,98.9:44,50.10:3,53,60.11:54,64,67,73.12:33,35.13:33.14:38.15:23,26.16:34.17:24.18:26.19:6,12,22,41.20:11,29,30,35.21:26,62.22:25,62.23:27.24:37.25:30,64,67.26:29,39.27:5,10,33.28:18,23.29:22,31,42.30:22.31:31,39.32:13,31.33:29.34:31,50.35:39,43,46,102.36:65,72,82,92,93.37:24,26,29,37,45,46,62.38:13,33,48,51,54,55,95.39:26,32,35,67,96.40:36,46,49,51,69,79,90.41:37,43,56,69.42:16,25,26,38,75,78,79,80,83.43:43,46,51,77,100,103.44:46,53,85.45:2,5,6,7,8,30,40,43.46:57,65.47:4,19,21,82,85,91.

* Traill's Flycatcher. This complex includes both the Willow Flycatcher,*Empidonax traillii*,and the Alder Flycatcher, *Empidonax alnorum.* Prior to 1957 this complex was called "Alder Flycatcher"; this is potentially confusing since the A.O.U. Checklist Committee in 1973 recognized that the Traill's complex was composed of two species and named one of them Alder Flycatcher. In this index I have placed all references to the southern breeding form with the "fitz-bew" song-type under the Willow Flycatcher heading. References to the northern form with the "fee-bee-o" song-type are placed under Alder Flycatcher heading. I have done this regardless of which name is used in The Migrant, but only when sufficient information was given to allow me to make these determinations. The remaining references are placed under the Traill's Flycatcher heading. Many of the records under this last heading could still be referred to the proper species if the observers were contacted regarding which song-type they had heard; since the birds in question could not have been reliably identified as Traill's Flycatchers (except in the hand) without hearing their vocalizations. I feel certain that many of the spring observations of Traill's Flycatchers are referable to the Willow Flycatcher. The observers simply did not mention the song-type because at the time of their observations only one species was recognized.
Traill's Flycatcher. 6:33.16:29.18:34.21:51.22:23.26:48.27:10,68.28:56,57.31:64.32:4,13.33:13.34:31,51.35:43,61,102.37:29,45,54.38:33,66,68,95.39:26,89.40:26,69,70,90.41:3,71.42:68,72,75,79,80,92.43:54,55.44:51,53.45:78.46:20.47:21.

* Willow Flycatcher:*Empidonax traillii.* 19:41,21:62.29:37.30:40.31:55.32:52.33:38,51.35:64,66.37:56.40:70.41:71,72.42:25,71.43:76,79,80,81.44:54,84,87,88,100.45:43,76,78,101,103.46:88,90,91.47:19,78,82,83,85,91,100,101,103.

* Alder Flycatcher:*Empidonax alnorum.* 31:39.43:83.46:55,57.47:76.

Least Flycatcher:*Empidonax minimus.* 3:14.5:22,53.7:17.9:2.11:67.13:67.14:37,56.15:30,32,55.16:29,34.17:6,24.18:25,26,34.19:21,22,41,62.20:29,35.21:26,49,62.22:25.23:25,27.24:37.25:30,54,67.26:29.28:23,43,56.29:22,28,31.30:22.31:31.32:31.33:13,29,51.34:15,32,72.35:43,46,61,103.36:65,72.37:29,37,45,46,54,62.38:33,51,55,66.39:32,42,43,67,89,90.40:26,36,70,90.41:37,71,74,85.42:

16,25,26,38,68,69,71,75,79.43:46,51,54,55.44:46,87,100.45:22,30,43,58,76.46:20,50,57,65,66.47:19,21,24,76,80,91.

Eastern Wood Pewee:*Contopus virens.* 2:12,14.3:14.4:16.5:2,18,22,27,42,46,53.6:3,68,71,72,77.7:3,7,35,49.8:26,48.9:2,18,19,25,44,46-48,69,97.10:3,53.11:57,64,73,74.12:33,45.13:48,55.14:11,53,55.15:23,26,30,63,74.16:34.17:24,48,56.18:26,53.19:6,22,41.20:11,29,30,35.21:26,62.22:25,60,62.23:5,26,27.24:37.25:30,67.26:29,38,39.27:6,10,33.28:12,18,23,27.29:22,31.30:19,22.31:31,39,45,55,59,64,69.32:31.33:29,59.34:15,23,32,66,73.35:39,43,46,102,104.36:63,65,72,81,92,95,96,98,100.37:20,24,26,29,37,45,46,85.38:2,13,33,48,51,54,55,94,98,101.39:5,26,32,35,42,43,90,93.40:26,36,45,46,51,57,79,87,90.41:37,43,56,85.42:16,38,75,78,79,92,95.43:46,102.44:4,46,75,78,85.45:2,5,6,7,8,43.46:23,31,50,57,66,68.47:4,19,76,82,85,91.

Olive-sided Flycatcher:*Nuttallornis borealis.* 6:93.7:18,74.8:39,40.9:43,44.12:59,72.13:40,43.14:37,52,56.16:38.19:22,42.23:3,25.24:74.25:30,54,67.26:39,51.27:53.28:21,23,43,54.29:22,31,57.30:22.31:31,39.33:29.34:71.35:39.36:64,72,75,84,89,96.37:37.38:47.39:32,34,90,93.40:36,69,70,90,93.41:37,69,71,85,88.42:55.43:55,76,79,80.44:46,50,100.45:22,43,102.46:19,88,91.47:6,19,69,70,71,76,91,103.

* Vermilion Flycatcher:*Pyrocephalus rubinus.* 23:3.36:14,15.39:12.40:17,19.41:68.42:91.44:99.

Horned Lark:*Eremophila alpestris.* Those numbers followed by an "A" refer also to the subspecies *E. a. alpestris.* The remaining numbers presumably refer only to *E. a. praticola.* 1:15.2:26,30,31.3:7,10,14,28,36,43.4:6,20,27,36,49.5:9,11,26,53.6:3,8,13,33,39.7:1,3,11A,21,24,25A,50,84.8:8A,18,27,36,80,84.9:7,8A,16,17,50,67,90-92.10:5,6,12,18,33.11:5A,7,8A,13,14A,22,23,51,54,67A,78,103.12:7,9,18,33,34,36,37,73.13:17,19,43,44,46,55,62,75.14:2,12,20,38,65A,74,77,79.15:9,15,29,57,70,71,77.16:11,34,45,59.17:15,21,24,28,64.18:9,26,55,62.19:22,42,67.20:28,30,31,35,62.21:15,26,37-41,52,53,62,76,80.22:13,15,16,19,25,67.23:3,27,49.24:16,18,26-27,37,58,78.25:17,18,30,78.26:16,29,44,62.27:6,33,72.28:9,13,23,65.29:9,22,31,53,55,60,71.30:22,34,66.31:13,16,31,36,37,69,76.32:5,10,31,50,70,72.33:10,28,48,68,72.34:11,32,52,75,84,88,89,90.35:46,113.36:9,10,12,43,72,89,95,97,98,100.37:8,9,10,26,37,54,55,56,65,82,84.38:2,9,21,22,33,54,88,102.39:5,19,20,22,23,32,35,77.40:20,36,45,49.41:8,37,43,56,57,66,69.42:9,19,38,63,75,79.43:12,46,96.44:11,27,43,46,79,80.45:2,5,8,12,21,26,43,102,103.46:8,10,20,46,48,57.47:4,24,35,36,48,82,85,91.

Tree Swallow:*Iridoprocne bicolor.* 3:37.4:8,16,36,49.5:60,62.6:17,91.7:49,69,98.8:15,18,42,87.9:14,64.10:3,57,74.11:27,103.12:26,58,71.13:35,54,66,67.15:77.16:34,45,64.17:24,28,51.18:26,62.19:22.20:35,68.21:7,26,51,67.22:13,25,28.23:28,39,53.24:37.25:15,27,30,51.26:29,44,50.27:6,16,33,67,68.28:6,8,23,42,61.29:22,31,53.30:14,22,34.31:11,31,44,70.32:31,45.33:10,12,29,50.34:7,13,23,32,49,50,71.35:41,43,46,51,66,102,106.36:8,37,43,63,64,66,68,72,92,93,95.37:20,23,26,37,54.38:18,19,33,48,51,54,55,65,67,93,98,99.39:32,42,43,45,48,59,60,61,63,64,66,77,86,89,93.40:23,36,46,49,51,68,70,90.41:21,37,43,71,83,85,89.42:38,47,68,91,94.43:10,12,14,23,27,46,51,54,55,75,79,98,102.44:22,46,53,81,95,96,97,100,102.45:2,43,55,76,78,79,101.46:23,24,44,46,57,68,70,83,86,87,88,90,91.47:6,19,21,47,48,78,80,82,91,100,101.

Bank Swallow:*Riparia riparia.* 3:37.4:16.5:60,62.6:91.7:7,69,100.8:4.9:64.10:3.11:67.12:26,34,58.16:34.17:24,28.18:26,62.19:22.20:35.21:7,26,51,62.22:25,46.23:28.24:37.25:30,52.26:26,29.27:67.28:42,60.29:22,31,53,59.30:14,20,22,34.31:11,31,44,45,70.32:31,41,43.33:10,29,47,49,50,51.34:32,49.35:41,46,66,106.36:63,65,68,69,72,75,95.37:23,37,55.38:33,47,48,51,54,55,67.39:32,45,64,66,89,90,93.40:36,46,70,92,93.41:37,68,71,89.42:38,72,75,94.43:46,48,54,79,98,102.44:46,60,78,102.45:43,53,56.46:24,57,68,88.47:1,4,5,19,22,78,80,82,91,100,101.

Rough-winged Swallow:*Stelgidopteryx ruficollis.* 2:6,14.3:14,37.4:8,16,51.5:2,42,53,60,62.6:4,12,83,91.7:7,36,46,49,69,100.8:26,42,60,76.9:44,63,64.10:3,29.11:54,91.12:21,26,33,34,58.15:26,28,30,33.16:34.17:24.18:26,62.19:11,13,22,42.20:30,35,68.21:8,26,51,53,62.22:13,19,25,46.23:5,28,49.24:37.25:30.26:29,50.27:6,20,33,68.28:23,42,43,60,61.29:22,31,53,59.30:14,22,34.31:31,59,70.32:31,37,40,42,45.33:10,29.34:32,75.35:16,39,41,43,46,51,117.36:8,63,64,65,66,68,72,92,95,96.37:23,26,37,54,55.38:2,33,48,51,54,55,67,98.39:7,32,35,43,46,48,64,89.40:36,45,46,49,51.41:37,43,46,56,85,89.42:38,44,48,69,75,79,94.43:25,46,54,77,79,102.44:26,46,53,85,103.45:2,5,8,43,99.46:31,57,68.47:4,22,24,82,85,91.

Barn Swallow:*Hirundo rustica.* 2:6,14.3:14,37.4:16,22,39,51.5:3,19,22,53,60,62.6:3,52,70,91,93.7:3,7,46,49,69,98,100.8:42,60,76.9:2,64,65.10:3,29.11:48,54.12:26,33,34,37,58,59.13:33,34,43,44.14:55.15:28,30,33.16:34.17:6,21,24,28,47.18:26,62.19:22,42.20:30,35,44.21:8,26,51,52,54,62.22:13,25,46.23:6,28,49.24:37.25:30,52.26:16-17,29,46,49,50.27:6,30,33,50.28:7,23,26,42,45,60,61,69.29:22,31,53,59.30:14,22,34.31:31,45,47,70.32:31,39,43.33:10,12,29,47,49,50,51.34:23,32,48,49,50.35:38,39,41,43,46,104,106.36:8,44,63,64,65,66,68,69,72,92,93,95,96,98.37:20,23,26,37,55,83,85.38:2,13,33,48,53,54,55,66,67,93,98,101.39:4,5,7,8,32,35,43,46,48,64,85,89,90.40:36,46,49,51,66,67,90.41:37,43,46,57,78,85.42:38,44,48,55,75,79,80,91,94.43:23,25,46,54,89,102.44:46,53,85,96,103.45:2,3,5,8,24,43,56,76.46:23,31,48,57,65,68.47:3,4,22,48,82,83,84,85,91.

Cliff Swallow:*Petrochelidon pyrrhonota.* 3:37.5:53,62,63.6:34,50.7:29,38,46,54,69,72,73,102.8:36,60.9:2,30,64,66.10:3,57.11:67,76.12:21-24,71.13:32,48.14:62.16:33,34.17:24,32.18:26,34,44,45,62.19:22.20:30,35,68.21:8,26,62.22:25,31,46.23:28,32,53.24:35,37,55.25:15,30,52.26:26,29,49.27:33.28:23,42,69.29:22,31,54.30:14,22,34,54.31:31,43,44,45,70.32:31,37,38,39,40,41,42,44.33:29,47,53.34:32,49,75.35:35,38,41,46,52,65,66.36:2,67,68,69,72,98,100.37:20,23,37,54,55,76.38:2,33,47,48,51,54,55,98.39:32,35,42,43,46,64,85,89,90,93,96.40:36,45,46,49,93.41:37,43,69,71,77,78,85.42:38,47,69,71,75,94.43:46,51,54,77,89.44:46,79,87.45:2,4,5,8,20,43.46:24,57,68.47:24,48,82,83,84,91.

Purple Martin:*Progne subis.* 2:2,24.3:14.4:8,16.5:3,18,29,32,42,53,59,60.6:3,12,52.7:2,6,7,20,36,37,46,49,56,100.8:15,18,26,36,42,60.9:5,13,19,28,29,31,44,46,48,49,53,65,66,69.10:3,11,12,29,32,55,58,67.11:27,28,32,57,74,78.12:15,32,35,45.13:23,44,69.14:11,13,14,39,41,53.15:13,16,17,19,27,28,35,57.16:11,14,34,47.17:24.18:12,25,26.19:6,19,22,42.20:30,35.21:8,13,26,29,54,63.22:13,16,25,27,28,47.23:6,10,12,13,28,54.24:15,37.25:17,27,30,51,55.26:29,45,46.27:6,17,18,19,20,33,50,67.28:8,11,21,23,42,44.29:7,8,9,

22,31,54,56,57.30:10,14,17,22,28,34,38.31:11,14,17,31,39,48,59,70.32:4,10,31,45,46.33:10,13,17,29,49,50,53.34:8,12,32,49,50,51.35:14,16,39,40,43,46,62,65,66,117.36:8,44,63,64,65,66,68,72,92,104.37:20,24,26,37,54.38:13,33,48,51,53,54,55,66,67,68,94,98.39:32,35,42,43,64,85,89,90,93,96.40:36,46,49,51,69,90,93.41:37,43,47,56,85,89.42:38,45,47,48,70,75,79,80,92,95.43:25,27,46,76,79,102.44:23,26,27,46,87,88.45:2,5,21,24,25,43,56,78,79,104.46:4,32,43,46,48,57,71.47:4,22,48,60,80,82,85,91,103.

Blue Jay:*Cyanocitta cristata*. The subspecies, *cristata*, was mentioned several times; however, I have not given any special notation to these references since this is the form which is expected over most of the State. 1:15.2:4,6,14,26.3:7,9,14,27,43.4:6,16,21,27,43,46.5:3,9,18,19,22,35,46,53.6:8,21,62,68.7:10,11,35,85.8:8,26,83.9:2,7,16-18,24-26,30,44,46-51,70,96.10:3,5,6,10,33,53,63,65,75,81.11:22,23,31,36,54,57,61,64,73.12:8,9,16,33,37,46,47.13:17,19,30,33,44,48,49,55,62,72,75,76.14:5,6,11,46,53,56,58,74.15:8,12,16,26,28,57,63,67,70,77.16:34,59.17:15,24,48,56,63,64,67,69.18:10,26,40,55,57.19:6,8,11,22,27,42,66,67.20:28,30,35,37,38,62.21:25,42,63,76.22:14,25,44,67,70.23:5,28,59,70,74.24:9,13,37,43,58,78,83.25:30,78.26:16,29,38,62.27:6,19,33,59,72.28:23,27,30,37,65.29:22,32,54,59,64,71.30:6,8,11,16,22,29,34,41,66.31:14,31,39,51,59,73,76,78.32:31,46,70.33:10,11,29,69,71,72.34:32,71,84,88,89.35:29,46,104,113,115.36:10,43,72,89,92,93,97.37:5,9,27,37,46,65,69,84.38:2,9,13,22,33,88,92.39:4,5,8,15,32,35,77,85.40:16,33,36.41:8,37,56,62,73.42:9,38,75,77,79.43:12,18,46,100.44:11,14,18,46,80.45:2,5,6,7,12,43,78.46:8,14,23,32,57.47:4,29,36,43,82,83,84,85,91.

* Black-billed Magpie:*Pica pica*. 31:16(escaped birds).

Common Raven:*Corvus corax*. 4:27.5:53.6:50,93.7:24,51,58,85.8:1,25.9:2,6,7,42,44.10:6.11:54.12:8.13:19,62.14:74.15:62,63,70.16:21,38,58.17:13,14,24,56,63,64.18:25,26,55.19:43,68.20:29,62.21:27,63,73,76,80.22:25,67,70.23:25,28,70.24:37,78,83.25:30,78.26:39,62.27:6,52,72.28:23,33,44,46.29:32,56.31:31,76,78.32:24,31,65,72,73.33:3,4,29,69,71.34:32,84,88,89.35:47,110,113,115.36:6,12,31,43,65,89,91,98.37:37,65,70.38:53,68,88,92,98.39:23,32,40,48,77,96.40:36,51,70.41:8,37,52,72,89.42:9,22,55,72.43:12,18,46,55.44:11,27,46,54,59,69,88,104.45:12,26,43,104.46:8,14,48,57,70.47:36,43,50,80,91,103.

Common Crow:*Corvus brachyrhynchos*. 1:15.2:4,6,14,27,28.3:4,7,14,31,43.4:6,16,27,43,49.5:3,9,13,14,19,22,47,53,65.6:8,36.7:2,3,11,35,47,100,103.8:8,17,29,50,76,78.9:7,14,16,17,32,44,47-50,71,90,92.10:3,5,6,25,29,47,53,58,60,61,77,81.11:5,6,22,23,31,37(*C.b.paulus*),57,61,64,65,112,117.12:8,9,33,37,45,68,75.13:17,19,32,45,54,62,72,75,76.14:11,37,39,53,74.15:26,57,70,77.16:12,20,21,34,59,60.17:13,14,24,48,64,65,69.18:18,21,22,26,49,50,55,57,58.19:6,8,12,22,43,66,68.20:28,30,35,62,65.21:27,63,76,79,80.22:16,17,25,37,67,70.23:5,28,51,58,59,70.24:13,37,78,80,83.25:30,74,76,78.26:16,29,40,59,60,62.27:6,33,72.28:23,29,65.29:9,22,32,54,71.30:8,11,19,22,26,27,34,63,66.31:31,39,59,70,73,76,78.32:3,6,8,31,70.33:27,29,69,71,72.34:22,23,32,84,86,88,89,90.35:18,47,63,113,115.36:10,37,43,72,86,91,92,93,97.37:37,65,69,72.38:2,9,33,88,90.39:4,5,8,32,35,77,82,85.40:33,36.41:6,8,37,40,56.42:9,38,75,78,79,84.43:12,18,46.44:11,14,46,69,80.45:2,3,5,6,7,12,43,66,99.46:8,14,32,57.47:4,36,43,82,85,91.

* Fish Crow:*Corvus ossifragus*. 2:24.5:27.7:68.13:42,67.14:51.15:33,77.16:45,59.17:24,27,63,64.19:68.20:35.21:27,76.22:25,67.23:28,70,72.24:37.25:30,74,78.26:29.27:16.28:7,23.29:28,32,67,71.30:22,36.31:32,76.32:31,70.33:29.34:32.35:31,47.36:72,89.37:37,65.38:33,88.39:42,77,89.40:36.41:8,37,56,57.42:9,18.43:12,46,75.44:11,22,46.45:10,12,20,43.46:6,57.47:4,38,45,91.

Black-capped Chickadee:*Parus atricapillus*. There are a few references to the subspecies, *practicus*, which is, however, the only form known from Tennessee. 4:28.5:53.7:58.9:3,6,7,43,44.10:5-7.11:24,31.12:8.13:20,41,63.14:73.15:69.16:58.17:6,24,63.18:25,26,55,58.19:43,66,68,70.20:28,30,62,65,67.21:76,79.22:67,69,70,73.24:78,82.25:75,78.26:37,39,40,60,62.27:72.28:24,33,65.29:69,71.30:63,66.31:76.32:70,72.33:69,71.34:84,88.35:68,113.36:12,86,89.37:26,37,65.38:23,82,85,88.39:48,77,82.41:8,25,26,27,28,29,52,53,54.42:9,30,55,65,72.43:12.44:11,12,46.45:12.46:8,57,91.47:36,42,44,50.

Carolina Chickadee:*Parus carolinensis*. 1:10.2:4,6,14,15,26,29,30.3:7,9,14,27,43,44,49.4:2,6,16,24,28.5:3,9,19,23,36,42,53.6:8,68,71,87,92.7:3,37.8:3,8,26,47,75.9:3,5-7,11,16,17,44,46-51,70,92,96.10:3,5-7,29,53,58,60,66,81.11:6,22-24,30,57,63,73,112.12:8,9,33.13:17,19,24,36,45,48,55,62,63,75,76.14:2,3,4,11,46,47,53,74.15:8,26,57,64,67,70,77,78.16:14,34,58,59.17:24,56,63,64,67,69.18:26,45,55,57,58.19:6,8,22,26,43,62,68,70.20:29,35,62,65.21:27,63,76,79.22:15,16,25,42,47,49,67,69.23:5,28,59,70,73,74.24:37,43,78,82.25:30,54,75,78.26:16,21-23,29,37,39,40,60,62.27:6,33,59,72.28:24,27,65,69.29:7,23,32,71.30:16,22,41,63,66,70.31:13,14,32,39,59,73,76.32:14,31,70,72,73.33:14,29,69,71,72.34:11,32,84,88,89,90.35:17,47,68,113.36:7,10,37,43,57,72,86,89,91,92,97.37:36,46,65,69.38:9,13,33,81,82,84,85,88.39:11,32,35,73,77,82,85.40:36,81.41:8,25,27,28,29,37,56.42:9,14,30,38,75,77,78,79,80.43:12,46,69.44:11,14,46.45:2,5,6,7,12,43,99.46:4,8,14,32,57.47:4,36,42,43,44,46,82,85,91.

Tufted Titmouse:*Parus bicolor*. 1:15.2:4,6,14,15,27,29,30.3:7,9,14,27,43,44,49.4:6,16,28.5:3,9,10,18,22,46,53.6:8,68,71,92.7:10,11,21,37.8:8,26,36,47,75.9:3,7,11,16,17,19,25,44,46-49,54,69,70,92,96.10:3,5,6,11,21,29,53,81.11:6,22,23,54,57,63,73,105,112.12:8,9,33,46.13:17,19,27,48,62,75,76.14:4,6,11,21,46,53,74.15:8,23,26,28,64,67,70,77.16:33,34,46,59.17:24,27,56,64.18:11,26,55,57.19:6,8,12,22,43,66,68.20:29,30,35,62.21:27,63,76,80.22:15,16,24,42,49,67,70.23:5,9,28,70,74.24:37,43,78,83.25:30,54,78.26:16,29,38,39,62.27:6,19,33,59,72.28:24,27,65.29:7,23,32,71.30:10,16,22,34,41,66.31:13,15,31,39,59,70,73,76.32:31,70,72,73.33:14,27,29,69,71,72.34:11,32,84,88,90.35:17,47,113.36:10,37,43,57,72,86,89,91,92,93,97.37:5,37,46,65,69.38:9,13,33,88.39:5,32,35,73,77,82,85.40:2,33,36,81.41:8,27,28,29,37,56.42:9,38,75,77,78,79.43:12,18,46,65.44:11,46,87.45:2,5,6,7,12,43,67,99.46:8,14,32,57.47:3,4,36,43,82,83,84,85,91.

White-breasted Nuthatch:*Sitta carolinensis*. 1:15.2:4,6.3:7,14,27,43.4:6,16,28.5:9,19,46,54.6:8,71,73.7:11,37,101.8:8,17,26.9:7,16,44,49.10:3-6,18,45,53.11:22,23,31,57.12:8,9,33.13:19,33,48,62,64,75,76.14:5,74.15:26,64,70,78.16:34,42,59,60.17:6,24,56,63,64.18:26,34,40,55.19:6,22,44,66,68.20:28,30,35,62.21:27,63,76,80.22:17,23,25,47,67,70.23:5,28,70,74.24:37,43,78.25:30,78.26:29,39,40,62.

27:6,33,68,72.28:14,24,65.29:23,28,32,71.30:11,16,22,66.31:16,18,32,76,78.32:31,68,70,73.33:16,17,18,29,69.34:32,75,84,88,90.35:47,108,110,113.36:11,12,43,65,72,86,89,91,92,97.37:7,9,10,24,37,55,56,65,69,84.38:9,13,21,22,33,53,68,88,99,100,102.39:5,32,35,67,77,96.40:20,36.41:27,28,37,57,79.42:9,38,65,75,78,79.43:12,46,69.44:8,11,13,46.45:2,6,7,12,15,41,43,46.46:8,10,14,19,57.47:4,36,40,43,82,85,91.

Red-breasted Nuthatch:*Sitta canadensis.* 3:7.5:9,54.6:90.7:11,19,24,58,85.9:1,3,7,42,44,50.10:5,6,9,11.11:21,25,28,48,67.12:8,9,10,71,72.13:19,27,43,62,63.14:11,15,55,56,57,74,79.15:16,33,64,70.16:45,58,59.17:6,56,63,64,67.18:25,26,55.19:22,44,68.20:28,30,35,60,62,68.21:12,13,14,24,27,74,76.22:16,17,19,23,47,48,65,67,70,71.23:11,12,28,70,74.24:16,37,78,81,83.25:17,26,30,55,78.26:12,25,29,39,40,48,50,62.27:6,16.28:24,33,55,56,62,65.29:7,9,10,23,32,71.30:11,22,41,42,63,65,66.31:10,12,18,32,76,78.32:8,31,65,70,72.33:4,7,12,13,15,16,17,18,27,29,69,71.34:9,32,39,50,52,66,71,72,74,75,81,84,87,88,89,93.35:14,15,16,17,19,35,36,38,39,40,41,44,47,113,115.36:8,11,12,43,72,86,89,92,93,94,95,96,97.37:7,8,20,23,29,37,65,81,83,85.38:19,20,22,23,33,51,68,88,98,99.39:32,48,67,75,77,82,83,89,90,93,96.40:11,19,20,23,24,36,46,49,79,88,90,92.41:8,21,23,28,37,43,47,52,53,54,79.42:9,18,19,21,22,38,45,55.43:7,12,46,69,80,98,99,101,102.44:6,11,21,23,24,26,46,51,53,88,103.45:12,24,30,43,78.46:8,14,19,20,23,24,45,46,48,57,65,68.47:9,17,20,22,36,43,45,50,76,91,103.

* Brown-headed Nuthatch:*Sitta pusilla.* All references from 1933-1951 are to Mississippi birds with the exception of one Alabama record. 4:8,20.5:11,27.8:8,14.9:16.10:8,11.16:42.18:8.19:44(Alabama).21:13.22:71.34:94(Georgia).36:37,43.40:11,36,49.42:47.43:54,102.44:26,103.45:102.47:48,78,91.

Brown Creeper:*Certhia familiaris.* 1:15.2:4.3:7,43.4:6,28.5:9.6:3,8,48.7:11,58.8:8,14,50,73.9:3,7,16,96.10:3,5,6,9,18,45(*C.f.nigrescens*).11:6,22,23,31(*C.f.nigrescens*).12:5,8,9.13:17,19,43,44,62,63,71,76.14:5,12,15,55,56,74.15:30,70,77.16:38,39,45,58,59.17:6,64,67,69.18:34(*C.f.nigrescens and C.f.americana*),55,57.19:44,68.20:29,30,35,62.21:14,42,63,76.22:16,25,28,67,72.23:9,12,13,28,70.24:15,37,78.25:30,78.26:30,39,62.27:6,18,72.28:24,55,56,66.29:23,32,71 30:11,59,63,66.31:13,17,18,32,64,72,73,76.32:31,70,72.33:4,7,27,29,48,59,69,72.34:9,13,15,32,66,73,75,79,84,88.35:19,41,43,47,96,104,113.36:11,43,57,65,66,72,86,89,91,95,97,100.37:9,10,20,24,26,29,37,46,62,65,81,84,85.38:9,22,23,33,51,54,55,88,95,97,98,101,102.39:22,23,32,35,48,77,94.40:26,36,46,49,51,70,79,90.41:8,24,28,37,43,52,53,54,85.42:9,16,38,55,65,91.43:12,46,69,80.44:6,11,13,14,46,53,88.45:12,104.46:8,19,24,50,57,66,91.47:9,36,40,91.

House Wren:*Troglodytes aedon.* 2:2.3:14,27,28,30.4:48.5:54,62.6:74.7:26,38.8:15,76.10:7,45(*T.a.baldwini*).11:30(*T.a.baldwini*).12:8,71.13:2-3,10,23,43,62,63.14:56.15:30.16:34.17:6,11,14.18:26,29,62.19:22,44,62(*T.a.parkmanii*),73,74.20:17,18,29,30,31,32,35,62,65.21:12,27,42,52,54,63,76,77.22:12,25,33,47,49,65,67.23:25,28,52,53,55.24:12-13,37,59,60.25:14-15,15,30,49-50,51,54,55,78.26:30,45.27:6,22-30,33,49,56,67.28:6,20,24,43,45,56.29:6,23,29,32,56,57,67,71.30:22,38,66.31:32,44,63,64.32:4,10,31,44.33:12,18,30,47.34:32,50,51,66.35:36,41,43,47,96,113.36:43,62,65,66,73,86,89,92,93,94,100.37:4,5,6,20,24,26,29,35,37,46,62,81,85.38:11,13,33,48,51,55,66,86.39:5,32,46,62,64,85,89,90,94.40:19,26,36,46,49,90,93.41:37,43,69,71,85,88.42:7,9,15,16,38,93,95.43:10,12,14,23,44,46,51,54,79.44:9,11,22,46,53,103.45:12,30,43,78.46:6,8,20,44,57,65,68,90.47:9,19,22,36,45,46,48,78,91,100,102.

Winter Wren:*Troglodytes troglodytes.* 2:4,27.3:7,14,27,43.4:6,28.5:9,54.6:3,8.7:11,85.8:8,36,73.9:1,3,7,33,38,43,44,50,69.10:3,5,6,43,45,75.11:22,23,26,31(*T.t.pullus*).12:8,9,16,49.13:3-5,17,19,24,62,76.14:12,55,74,78.15:64,70,71,77.16:34,38,39,59.17:6,24,56(*T.t.pullus*),64,67,69.18:25,26,34(*T.t.pullus and T.t.hiemalis*),55,57.19:22,44,62,68.20:28,35,62.21:12,27,42,43,63,74,76.22:25,67.23:12,52,70.24:37,58,78.25:30,78.26:16,30,39,62.27:6,18,19,33,73.28:24,33,45,56,66.29:23,71.30:10,16,18,41,42,63,66.31:16,32,76.32:8,31,45,70,72.33:5,27,30,69.34:11,13,15,32,39,78,84.35:43,47,64,96,104,110,113,115.36:30,43,86,89,91,93,94,95,97,98,103.37:8,10,20,29,37,45,62,65,81,83,84.38:9,17,20,21,22,33,48,51,88,92,94,95,98,100,102.39:23,32,43,46,67,77,90,94.40:23,24,26,33,36,46,49,79,90.41:6,8,23,37,43,51,52,53,83,85.42:9,16,38,45,55,95.43:12,46,60,100.44:11,13,27,46,51,103.45:12,24,41,43.46:8,19,23,57.47:9,17,36,91,103.

Bewick's Wren:*Thryomanes bewickii.* 2:2,4,6.3:7,14,27,30,43,49.4:2,6,16,24,48.5:3,9,18,23,29,44,54.6:8,68,83.7:8,11,37.8:8,17,26,85.9:3,7,16,18,47,54,70.10:3,5,6,8,45,56,67,81.11:22,23,26,27,57,63,73,77.12:8,9,15,33,35,36,37.13:5-7,10,17,19,24,36,44,62,75,76.14:11,12,14,48,59,74.15:16,26,28,57,70.16:33,59,60.17:24,39-42,64.18:26,29,55.19:6,11,12,22,26,45,62(*T.b.altus*),68,73.20:29,30,35,62.21:27,43,54,63,76.22:14,25,42,49,67.23:6,11,28,55,59,70.24:14,16,17,37,59,78.25:30,78.26:16,30,62.27:6,19,23,24,26,27,28,33,56,73.28:24,26,31,45,66,67.29:23,32,57,71.30:22,66.31:32,44,76.32:7,31,46,70.33:30,47,50,69.34:11,13,32,79,84,90.35:36,43,47,66,106,113.36:10,11,43,57,65,66,67,73,89,92,97.37:4,5,6,10,20,26,37,45,46,56,65,81.38:12,13,17,21,33,55,66,68,88,96,100.39:5,32,35,48,62,64,67,77.40:36,46,69.41:8,23,37,44,46,56,57,71,85,89.42:9,38,45,76.43:2,12,27,42,44,46,54,71,77.44:11,46,51,84,85.45:2,5,8,12,43,78.46:8,20,33,57,68,71,88.47:4,5,19,22,36,45,46,48,82,85,91,99,102.

Carolina Wren:*Thryothorus ludovicianus.* 1:5,9(?),15.2:2,4,6,14,15.3:8,14,27,30,43,44.4:6,16,28,37.5:3,9,18,19,23,28,46,54.6:8,68,83.7:3,11,32,37,53.8:8,26,48,85.9:3,7,11,16,17,31,44,46-48,50,51,54,70,71,92.10:3,5,7,27,53,62,67,78,81.11:22,23,27,35,57,61,63,64,73,77,116.12:8,9,16,17,18,33,45,76.13:7-9,10,17,19,46,48,62,71,74,75,76.14:1,2,4,6,11,14,21,43,48,53,63,74.15:8,13,26,28,57,70,77,78.16:34,42,59.17:12,24,39,40,49,64.18:26,55,57.19:6,11,22,26,45,68,73,74.20:28,30,35,62.21:14,27,54,63,76.22:15,16,17,25,31,42,47,49,67,70.23:5,9,28,30,59,70.24:37,59,78.25:17,27,30,54,78.26:16,30,39,48,62.27:6,19,23,24,27,28,33,59,73.28:9,24,27,66.29:23,32,54,57,58,71.30:16,18,22,41,66.31:13,32,39,48,59,70,72,76.32:10,32,70.33:16,30,63,69,71,72.34:11,32,80,84,90.35:47,113.36:37,43,57,73,89,92,97.37:6,37,45,46,65.38:2,9,13,33,88.39:5,32,35,62,77,82,85.40:36,46.41:8,28,37,56.42:9,14,38,55,75,78,79,80,84.43:3,12,18,46,77.44:11,46,85.45:2,5,6,7,12,40,43,67,99.

46:8,14,33,57.47:3,4,36,43,82,85,91.

Long-billed Marsh Wren:*Cistothorus palustris.* 3:14,28.5:14,26.6:8.7:3,38,43,71.8:22.9:7.12:7,8,15.13:10,11-12.14:39,56.15:33.17:63,64.19:62(*C.p.dissaeptus and C.p.iliacus*).20:62,64.21:8,46,54,63.22:25,60,67.23:10,28,58,59.24:34,37.25:17,27,30,78.26:26,30.27:6,10,33,53,67.28:13,20,24,56.29:23,32.30:23.31:32,64.32:32,45.33:13.34:8,15,32,66.35:96,104.36:43,81,94,95.37:23,29,37,62,83.38:33,36,51,96,98,99.39:32,46,94.40:26,36,79,88,90.41:37,44,85.42:16,19,38,71,72,93,95.43:10,12,14,23,46,48,51,54,88,100,102.44:6,11,53,103.45:21,30,78.46:8,20,23,24,46,57,65,66,68,70,88.47:9,19,22,36,41,48,76,78,87,91.

Short-billed Marsh Wren:*Cistothorus platensis.* 3:14.4:38.5:22,29,60,62.6:93.7:68,70,71,100.8:57,61.9:63,64,97.10:3,75.12:71.13:10,12-13,32,67.14:55,73,74,75,78,79.15:17,30.16:45.17:24,69.18:57.19:68.20:62.21:8,14,27,51,63.22:12,25,47,60,67.23:28.24:58.25:16,17,55,78.27:6,31,33.28:13,45,55,56.29:23,32.30:23,24,38.31:45,47,76.32:32,43.33:65,69.34:7,8,32,66,71,73.35:41,64,66,69,96.36:43,63,68,89,95.37:29,55.38:33,47,51,65,67,98,99,100.39:32,35,46,64,66,75,77,82,94.40:88,90.41:37,88.42:7,9,16,72,93,95.43:10,12,23,25,46,51,54,79,88,100,102,103.44:4,46,53,87,103.45:21,26,43,78.46:20,57,68,78,88,90.47:9,17,19,22,24,36,38,45,46,48,76,78,91,102.

* Rock Wren:*Salpinctes obsoletus.* 27:76.

Mockingbird:*Mimus polyglottos.* 1:15.2:4,6,12,13,14,15,24,25,27,29,30,32.3:6,8,9,11,12,14,27,31,43,44,45,46,47,49.4:1,2,3,6,16,24,28,29,30,31,32,33,34,35,37,40,49,51.5:3,9,10,17,18,19,24,30,35,36,37,39,46,48,54,61,65.6:1,2,8,10,11,33,62,68,82,83.7:2,4,8,10,11,18,21,23,37,57,71,102.8:2,8,18,29,52,85.9:7,10,16,17,19,25,46-48,50,51,70,90-92.10:3,5,7,10,33,56,58,66,78,81.11:22,23,54,62,65,75,78,112.12:8,9,16,17,19,33,37,62,65-67,78.13:17,20,24,34,36,38,44,48,55,62,75,76.14:1,3,4,6,11,45,46,48,53,74.15:12,13,16,21,27,28,57,70,77,78.16:9,34,59.17:24,47,48,49,64,69.18:26,55,57.19:6,8,11,22,45,68.20:7,30,35,38,62.21:13,14,15,27,63,76.22:14,15,17,25,47,67.23:5,29,52,59,70.24:37,43,58,78.25:16,17,30,52,78.26:16,30,62.27:6,33,73.28:24,31,45,66.29:9,23,32,54,71,72,73.30:8,10,16,18,23,25,34,39,40,66.31:13,14,32,39,46,59,70,76.32:8,32,70.33:10,14,29,69,72.34:11,12,32,62,63,84,90,96.35:47,90,113,119.36:10,43,57,73,89,92,97.37:27,37,46,65.38:2,9,10,13,33,88.39:4,5,7,8,32,35,77,85.40:2,36,90.41:8,37,56,57.42:4,9,16,32,38,75,79.43:12,38,46.44:11,14,18,46,70,85,96,101.45:2,3,5,6,7,13,43,58,60,61,62,99.46:9,33,50,57.47:3,4,36,82,83,85,91.

Gray Catbird:*Dumetella carolinensis.* 2:6.3:9,12,14,27,31,46.4:16,37,51.5:3,18,23,38,54.6:1,3,68,81,83,90.7:2,3,6,37,46,49,58,59,85,101.8:26,36,51,62,85,87.9:3,25,44,47,48,50,54,70,71,98.10:3,4,29,56,62,66,75.11:35,54,57,62,73,75.12:33,37,46,72,78.13:32,45.14:7,11,48,53,78.15:27,30,32,64,77,78.16:33,34.17:6,11,24,27,56.18:26.19:6,11,22,45.20:28,30,35,62.21:13,15,27,63.22:12,25,28,60,62,63.23:6,28.24:37,78,80.25:30,54,67.26:30,38,50,58,60,62.27:6,10,33,67.28:14,24,27,32,55,56,57,62,66.29:7,23,32,54,69.30:15,23,41.31:32,59,63,64,67,76.32:9,10,14,32,70.33:7,12,13,14,18,29,59,65,69,73.34:15,32,34,56,66,76.35:36,41,43,47,95,96,106.36:43,56,57,63,64,65,66,73,80,81,82,89,94,98,100.37:20,24,26,28,30,37,45,46,61,62,63,65,76,77,78,81,85.38:13,33,48,51,53,54,55,86,88,94,96,101.39:5,26,32,35,46,75,77,85,90,94.40:26,36,46,49,51,57,79,93.41:20,23,24,37,41,44,47,53,56,57.42:7,9,15,16,19,38,45,75,79,80,95.43:12,22,25,27,46,51.44:4,6,11,32,46,81,85.45:2,5,7,24,30,43,58.46:33,50,57,71.47:4,9,22,40,78,82,85,91.

Brown Thrasher:*Toxostoma rufum.* 2:5,6,13,14,19,29.3:8,12,14,27,44.4:2,6,9,16,24,51.5:3,9,15,18,23,24,30,36,46,48,54.6:1,8,10,11,20,37,68,81,83,87.7:3,7,10,11,18,19,20,24,37,46,49,101.8:3,8,14,17,18,26,37,40,42,51,64.9:7,15-17,25,31,44,46-48,50,54,69-71,98.10:3,5,7,11,12,56,62,66,75.11:22,23,27,28,31,54,57,62,73,75,116.12:8,18,33,46,70,73.13:20,23,36,44,48,56,62.14:7,11,12,48,53,57,74.15:13,16,17,26,28,57,64,70.16:14,34,47,59,66.17:6,10,24,35,48,56,63,64,69.18:9,10,26,55.19:11,22,46,68.20:7,25,28,30,35,62.21:13,27,63.22:15,16,25,46,49,59,60,67.23:5,11,12,13,26,28,70,73.24:14,15,16,35,37,60,78,82.25:16,17,27,30,75,76,78.26:16,30,48,62.27:6,18,19,33,51,67,70,73.28:8,10,14,24,27,56,66.29:8,23,32,54,69,71.30:10,11,16,23,29,34,39,40,41,66.31:12,13,14,32,39,63,64,70,76.32:5,6,8,9,32,70.33:10,15,17,30,63,69,73.34:10,11,12,13,32,66,81,84.35:39,41,43,47,70,96,113.36:9,10,30,43,57,60,61,63,64,65,67,79,89,92,94,98,100.37:6,9,10,24,26,27,30,37,45,46,62,65,81,84,85.38:2,13,18,19,21,22,33,53,55,89,96,97,101,102.39:4,5,19,22,23,32,35,46,78,85.40:18,23,26,36,46,49,79.41:8,10,21,23,24,37,47,56,57.42:5,9,19,22,38,75,78,79.43:12,46,77.44:4,11,13,15,26,27,46.45:2,5,7,8,13,43.46:9,33,57.47:4,9,36,82,85,91.

American Robin:*Turdus migratorius.* 1:5,15.2:5,14,27.3:6,8,11,15,27,32,38,43,44,46.4:2,3,6,16,21,24,28,30,37,45,46,49,51.5:3,9,15,18,23,24,29,30,32,33,54,59,64,65.6:1,8,13,20,81,83,93.7:4,5,11,22,24,37,45,58,59,69,70,85,101.8:~~3~~,8,18,26,57,60,63,83,85.9:8,11,13,14,16-19,24,26,29,32,44,46-50,65,67,70,71,90,92,98.10:3,5,7,9,11,13,14,18,21,56,58,61,66,75,81.11:6,22,23,26,27,31,35,58,60,61,63,67,73,75,77,78,92,103,105.12:5,8,9,16,17,18,19,33,37,72,75.13:17,20,23,25,26,27,36,48,55,62,71,75,76.14:7,11,12,14,40,45,53,69,73,74.15:9,12,16,17,26,57,64,70,77.16:12,14,34,58,59,62,63.17:6,10,11,12,17,24,28,48,57,63,64,67,70.18:10,26,55,57,58.19:6,8,9,11,22,46,66,68.20:7,13,30,35,53,54,62,65.21:13,14,27,43,63,76,80.22:14,16,25,28,46,67.23:6,11,28,40,54,56,70.24:5-7,14,15,16,31-32,32-33,37,43,57,78,81.25:17,18,30,52,74,75,78.26:16,30,38,62.27:6,17,33,49,69,70,73.28:8,11,24,27,31,32,44,56,66.29:9,10,23,29,32,54,67,71,73.30:6,8,9,11,12,13,16,17,23,25,29,34,37,39,63,66.31:12,13,14,15,16,17,32,37,39,59,76,78,79,80.32:3,6,8,9,32,43,45,66,70.33:5,6,13,14,16,18,30,64,69,72.34:8,11,32,39,72,78,81,84,88.35:15,19,47,110,113,115.36:7,9,10,11,43,62,67,73,79,86,89,91,92,94,97,98.37:6,9,12,24,27,30,37,66,71,72,84.38:2,9,13,19,22,33,48,54,66,68,89,92.39:7,8,26,32,35,78,85.40:15,20,24,36,79,83.41:6,8,23,37,52,53,54,56,57.42:10,38,75,79.43:8,12,15,46.44:11,14,23,26,31,46,58,70,79,80,85,101.45:2,5,13,43.46:9,14,33,45,46,57.47:4,36,83,85,91.

Wood Thrush:*Hylocichla mustelina.* 2:6,14,17.3:15,27,28,44,46,49.4:2,8,16,24.5:3,18,23,54,59.6:4,81,87.7:7,37,46,49,61,72.8:26.9:3,31,44,46-50,69,98.10:3,4,29,53,59,60.11:54,58,63,73.12:6,33,35,45.13:48.14:11,26,53,54,55.15:13,26,28,30,57,64.16:34,65.17:6,10,11,24,48,57.18:26,61.19:4,6,11,22,46.20:7,13,14,15,25,29,30,35.21:27,63.22:25,31,60,62,63.23:5,28.24:37,43.25:27,31,67.26:30,39,

40,50.27:6,10,33,67.28:19,24,26,30,55,56,57.29:23,32,54.30:15,23,41.31:32,39,59,64.32:32.33:5,7,13,30.34:9,15,23,32,34,56,66,75.35:36,38,41,47,53,96.36:57,62,63,65,67,73,79,81,92,93,100.37:20,24,26,27,30,37,46,62,80,81.38:13,33,48,51,54,55,66,94,96,98,100.39:8,26,32,35,42,46,89,94.40:26,33,36,45,46,49,51,57,69,79,90.41:37,44,57,69.42:16,38,45,48,55,75,77,78,79,84.43:3,8,46.44:4,6,46,54.45:2,5,7,8,30,40,43,58.46:34,50,57,65.47:4,9,16,22,41,83,85,91.

Hermit Thrush:*Catharus guttatus*. 2:4,14.3:8,27,43.4:6,16,28.5:9.6:4,8.7:10,11.8:2,3,8,14.9:8,15-17,69,96.10:3,5,7,22,59,75,81.11:7,22,23,67(*C.g.polionota*).12:8,9,16,72.13:17,20,62,64,76.14:37,45,46,51,74.15:15,70.16:12,39,59.17:10,63,64,69.18:46,55,57.19:46,66,68.20:30,62.21:12,63,76,78.22:15,67.23:12,28,70.24:37,78.25:31,55,78.26:62.27:6,19,33,73.28:8,11,32,45,56,66.29:8,23,32,71.30:11,16,18,23,41,62,66.31:14,18,32,64,73,76.32:32,70.33:7,18,63,69.34:13,66,79,84.35:47,49,96,102,106,113.36:9,12,43,56,57,63,73,84,89,92,93,95,100.37:10,20,23,24,26,30,37,46,62,66,83,85.38:19,33,48,51,55,89,94,96,98,100,101.39:24,32,46,48,78,81,82,89,94.40:19,23,36,46,51,79,90.41:9,24,83.42:10,38,70.43:12,16,46,54,55.44:6,11,27,30,46,54,104.45:13,26,41,43.46:9,48,50,57,69,70.47:9,19,37,50,78,80,89,91.

Swainson's Thrush:*Catharus ustulatus*. 2:14.3:15.4:16.6:73.7:7,18,37,46.10:3,33,45,59.11:104,117.12:77.14:26.15:30,32.16:39.17:23.18:26.19:22.20:11,35.21:27,43,63.22:25,48,60,62,63.23:28.24:17,37,57.25:31,55,67.26:30,46,51,53-57.27:6,9,10,33.28:12,24,55,56,57.29:23,32,54.30:15,23,36,58.31:32,59,63,64.32:10,13,32.33:7,18,30,51.34:15,32,34,50,51,56,66,67,68,75.35:36,39,43,47,53,62,96,104,106.36:57,63,67,73,80,81,82,83,84,89,94.37:21,26,27,28,30,33,37,45,46,61,62,81,84.38:2,33,46,48,51,96,100,103.39:26,32,35,46,64,66,67,90,94.40:26,36,46,49,69,79,90.41:5,9,13,37,44,69,85.42:16,38,45,48,68,70,75,95.43:25,46,55,76.44:4,6,30,46,80,87,88,100.45:3,30,43,58.46:46,50,57,65,69,88,90.47:6,9,22,46,83,91,100.

Gray-cheeked Thrush:*Catharus minimus*. 2:14.7:37.8:52.9:54.10:3,32,59.11:67.14:36,51,55.15:30.16:29(*C.m.bicknelli*).17:23.18:26.19:22.20:35.21:27,63.22:25,60,62.24:37,57.25:31,67.26:26,30,48.27:6,10,33,51,67.28:12,24,26,55,56,57.29:23,28,32.30:23.31:32,64.32:10(*C.m.bicknelli*),13,32.33:7,30,51.34:28,32,34,49,50,51,56,66.35:36,39,47,96,104,106.36:57,73,81,82,100.37:21,26,27,28,30,31,46,62,86.38:33,46,47,48,94,96,100,101,103.39:32,35,64,66,90,94.40:26,36,46,49,79,88,90.41:37,44,69,75,85.42:38,45,70,95.43:46,51.44:4,30,46,51,87,88.45:30,43.46:20,57.47:9,91.

Veery:*Catharus fuscescens*. 3:27.4:16.5:54.6:4,33.7:37,38,58,85,99(*C.f.salicicola*).9:43,44,50.10:3,31,59.11:67(*C.f.salicicola*).13:40,41.14:11,37 and 56(*C.f.salicicola*).15:64.16:12,34.17:6,11,23,57,67.18:26.19:22,46.20:11,28,35.21:27,43,63.22:25.23:4,28.24:37,58.25:27,31,67.26:25,26,30,39,40.27:6,34,48.28:24.29:23,32,55.30:23,37,42.31:32,39,64.32:32,45.33:5,7,30.34:15,32,34,39,56,66,67,75.35:36,43,47,62,64,96.36:73,81,82,94,100.37:23,26,30,37,45,46,61,62,81,86.38:33,47,56,68,96.39:26,32,64,66,67,90.40:26,36,46,49,90.41:37,52,53,71,85,89.42:38,45,55,70,93.43:46,51.44:6,30,46,87,100,104.45:30,43,58.46:20,21,57,69,90.47:75,78,80,91.

Eastern Bluebird:*Sialia sialis*. 1:5,15.2:2,5,6,14,25.3:6,8,9,15,27,31,43,44.4:2,3,6,16,21,24,28,37,51.5:3,9,18,23,24,29,35,46,54.6:8,62,68,83.7:11,37,86,99,102.8:8,26,85.9:4,8,14,16-18,44,46,50,70,71,84,88,92.10:3,5,7,32,33,53,58,73,78,81.11:22,23,58,63,73,93,95,112,116.12:8,9,18,19,33,72,76,78.13:17,20,24,36,37,38,45,54,55,62,75,76.14:2,3,4,5,7,11,12,15,45,46,48,54,74.15:21,26,32,70,74,77.16:12,14,15,34,59.17:23,48,49,64,69.18:11,26,40,55,57.19:6,7,8,9,9-11,12,22,25,26,27,46,66,68.20:29,30,35,62.21:27,64,74,76,80.22:15,17,25,42,46,63,67.23:5,9,11,13,26,28,50,59,70.24:13,15,35,37,78.25:17,27,31,52,53,78.26:16,17,30,45,48-49,62.27:6,17,29,34,50,73.28:11,24,27,40,42,66.29:7,9,10,23,29,32,54,55,57,71.30:8,10,11,16,18,23,25,38,60,66.31:12,16,18,32,39,45,46,71,72,76.32:10,32,43,45,46,66,67,70.33:16,17,18,30,48,51,52,54,63,69,71.34:10,11,13,25,29,32,74,78,84,90.35:8,36,39,47,62,113.36:9,11,20,32,43,73,89,91,92,96,97,98.37:9,21,24,37,66,84.38:13,22,34,48,53,89,91.39:5,7,11,20,22,24,32,35,60,73,74,78,85.40:20,36,46,81.41:9,37,56,86.42:10,14,38,65,75,79,80,84.43:12,43,46,65,69.44:12,14,46,85,95,96,98,100.45:3,5,8,13,43,99.47:4,5,9,14,34,57.46:4,29,37,43,61,83,85,91.

Blue-gray Gnatcatcher:*Polioptila caerulea*. 1:5.2:6,14.3:15.4:8,16.5:3,54.6:4,68,72.7:3,6,37,46,49,59,72.8:26,42,48.9:31,48.10:3,27,53.11:58,73.12:11,33,46.13:43.14:11,14,39.15:17,23,26,30,32.16:11,14,34.17:23.18:26,53.19:6,12,22,47.20:30,35.21:8,27,53,64.22:23,25,48.23:5,28,54.24:37,54,59.25:31.26:30,50,51.27:6,19,34,51,52.28:8,24,27,45.29:23,32.30:23.31:32,39,47,59.32:32.33:17,30.34:8,23,32,79.35:39,41,43,47,64,69,102.36:62,63,64,65,67,73,92,96.37:21,23,24,26,37,55,72,81,83,84,86.38:13,34,47,48,51,54,56,96,97,98.39:32,35,46,48,85,94.40:36,46,49,51,90.41:37,44,56.42:21,38,45,75,78,79.43:10,12,14,22,23,25,46,54,55,77,100.44:46,85,88.45:3,5,6,7,8,43,76,99,104.46:34,57,65,69.47:3,4,37,39,46,75,78,83,85,91.

Golden-crowned Kinglet:*Regulus satrapa*. 1:15.2:4.3:8,11,43.4:6,16,28.5:9.6:4,8,78.7:11,58.8:8,73.9:3,8,16,17,43,44,50,69,96.10:3,5,7,81.11:22,23,26.12:8,9,16.13:17,20,43,62,63,67,71,75,76.14:15,55,74.15:30,70,77.16:38,39,47,59.17:23,63,64,67,69.18:25,26,55,57.19:47,68.20:28,30,35,62.21:12,14,25,64,76.22:23,25,67.23:12,28,70,74.24:15,17,38,78.25:31,78.26:16,30,39,40,62.27:6,34,73.28:11,24,32,55,56,66.29:9,23,71.30:16,59,63,66.31:32,73,76.32:32,70,72.33:7,30,59,69,71,72.34:13,15,39,75,79,84.35:19,36,47,96,102,104,113.36:10,43,57,67,81,86,96,103.37:8,9,23,30,37,62,66,83,84.38:9,10,22,49,51,54,89,92,94,96,98,103.39:24,32,67,78,82,89,94,96.40:20,26,36,46,49,79,90.41:6,9,28,52,53,79,86.42:10,16,38,45,55.43:13,18,51.44:6,12,14,46.45:13,30,43,58.46:9,14,19,57.47:9,37,43,75,91.

Ruby-crowned Kinglet:*Regulus calendula*. 1:15.2:5.3:8,15,43.4:6,16,28.5:9,27.6:4,8.7:11,101.8:8,14,17,36,77.9:8,14,31,96.10:3,5,7,13,17.11:22,23,37,103.12:8,9,17.13:20,50,62,76.14:54,55.15:70,71,77,78.16:47,59.17:23,64,69.18:26,55,57.19:22,47,68.20:30,33,35,62.21:12,14,15,25,64,76,80.22:16,18,19,25,67.23:28,53,70.24:15,17,38,78.25:31,78.26:16,30,50,62.27:6,34,73.28:12,24,45,56,66.29:9,23,32,71.30:11,16,23,66.31:32,64,72,73,76.32:32,70,72.33:7,14,27,30,59,69,71.34:11,12,13,15,32,50,66,75,79,84,90.35:19,36,39,43,47,96,104,113.36:10,11,43,57,63,65,67,73,86,89,96,97,98,100,103.37:8,21,23,26,30,37,46,62,66,81,83,84,86.38:19,22,23,34,46,49,51,53,54,56,89,94,

94,96,98,100,101,103.39:20,22,24,32,48,64,66,78,82,90,93,96.40:26,36,49,51,79,90.41:9,10,28,37,44,86.42:10,16,38,45,70,95.43:13,18,46,80.44:6,12,46,51,53.45:13,30,31,43.46:9,14,20,57,66.47:9,37,38,78,91.

Water Pipit:*Anthus spinoletta*. 3:43.4:28,48,49.5:9,10.6:8,13,33,92.7:11,19,24,101.8:8,19,73.9:8,12.10:5,7,45,76.11:6,13,14,22,24,28,103.12:8,73.13:17,20,62.14:65,74,79.15:14,30,74,77.16:47,59,60.17:63,65,69.18:55,62.19:64,65,71.20:29,31,35,62,65.21:8,11,13,64,76.22:14,67,71.23:67,70,73,76.24:14,34,38,78.25:18,78.26:16,59,62.27:6,18,19,20,73.28:6,7,21,24,66.29:23,28,32,54,71.30:34,59,66.31:12,70,76.32:4,8,32,70.33:10,30,69.34:78,79,84,89.35:40,47,113.36:8,10,43,63,89,95.37:8,66,83,84,86.38:20,34,49,51,86,89,98.39:21,32,46,78.40:23,45,46,49,54,55,83,91.41:9,42,86.42:10,21,38,43,45,47,84,95.43:13,46,54,71.44:12,23,43,51,103,104.45:13,24,26,43.46:9,20,23,24,46,48,57,69,70,71.47:22,37,48,78.

* Sprague's Pipit:*Anthus spragueii*. 24:9,28-29,78,80.25:46,47,48,74,78.27:16,73.28:6,26,66.29:7.31:11.32:4.34:8.47:45.

Cedar Waxwing:*Bombycilla cedrorum*. 1:15.2:4,14,26.3:8,15,27,28,32,43,48.4:6,16.5:3,9,14,23,55,63.6:8,73.7:12,86,99,103.8:8,14,18,26,37,61,73,88.9:3,8,13,15-17,25,27,29,44,69,92,98.10:3,5,7,13,14,21,32,34,81.11:6,22,23,28,49,54,61,112.12:8,9,13.13:17,20,24,46,62,63,64,75,76.14:2,4,15,45,55,56,74.15:12,16,28,64,70,77.16:11,12,34,47,60.17:18,23,25,57,65,67.18:26,55.19:8,22,47,68.20:29,30,36,44,62,65.21:14,15,25,53,64,76,78.22:14,17,25,47,67.23:28,59,70.24:14,18,32,33,35,38,57,78.25:17,31,55,74,78.26:16,30,38,62.27:6,17,18,20,34,73.28:9,10,12,13,24,66.29:10,23,29,32,71.30:10,11,23,59,67.31:13,14,16,17,18,32,43,59,76.32:8,10,32,44,50,70.33:16,30,69.34:13,32,39,75,76,78,84,89.35:19,36,39,41,43,47,65,102,104,113,117.36:9,11,12,43,63,67,68,69,73,89,92,93,96,98.37:7,8,9,24,26,37,55,56,62,66,81,83,84.38:20,23,34,49,51,53,54,56,68,89,92,97,99,103.39:32,35,64,78,90.40:20,23,24,36,69,91.41:6,9,21,23,37,79,86.42:10,19,38,45,55,70,72,75,79,80.43:13,46,55,79.44:12,13,14,23,46,84,87,104.45:3,4,5,13,14,15,43,46,78,79,103,104.46:9,10,11,44,46,57.47:6,22,37,39,46,50,83,85,91,98,99.

* Northern Shrike:*Lanius excubitor*. 35:89.

Loggerhead Shrike:*Lanius ludovicianus*. 1:5.2:5,6.3:8,15,43.4:6,16,22,28,38,49.5:9,10,14,15,19.6:6,8.7:12,22,50,101.8:8,17,18,40,61.9:8,17,46,98.10:3,7,35,81.11:24.12:6,8,9,18,33,69.13:17,20,27,33,34,44,61,62,64,75.14:53,74,75.15:23,28,70,77.16:34,42,60.17:20,23,65,69.18:26,28,34(*L.l.ludovicianus*),35,55,57.19:11,22,47,68.20:30,36,44,60.21:25,64,76.22:17,19,25,44,46,67.23:6,28,52,59,70.24:13,34,38,58,59,78,79.25:31,78.26:16,30,51,63.27:7,34,35-37,73.28:24,66.29:23,32,54,71,73.30:16,23,34,60,67.31:32,70,76.32:14,32,70.33:10,30,51,69.34:32,84.35:30,47,65,66,92,104,113.36:9,11,12,43,65,67,73,89,92,97,98.37:7,9,24,26,37,40,46,55,66,70,84.38:9,10,13,21,22,34,54,56,89,96,103.39:4,5,20,24,32,35,78.40:36,61,86.41:9,37,56,69.42:10,38,75,79.43:13,46,89.44:12,14,46,87.45:3,5,8,13,43,78,99.46:9,34,57.47:4,37,80,83,85,91,103.

Starling:*Sturnus vulgaris*. 1:5,15.2:4,25,27.3:8,10,15,43,48.4:6,8,11,12,16,20,22,28,49,51.5:9,11,13,14,15,23,26,38,42,44,55,64,65,66.6:8,13,34,52,74,93.7:12,19,24,27,47,59,71,103.8:2,8,27,52,60,63,78,79.9:8,14-18,29,32,44,47,49,50,59,61,65,70,76,87,90,92.10:3,5,7,13,32,56,58,67,74,75,81.11:7,22-24,26,27,45,51,54,75,77,78,103,106.12:8,9,16,17,33,35,37,72.13:17,20,24,25,34,38,44,48,54,55,62,75.14:1,4,7,13,40,45,53,54,74,78.15:9,12,16,17,19,24,67,70,71,77.16:34,42,60,62,63.17:11,12,18,23,47,65,69.18:12,26,55,57,58.19:8,11,22,47,68,69.20:30,36,60,65.21:27,64,76.22:12,14,15,16,25,28,43,65,67,72.23:11,28,40,68,70,71.24:5,13,30,31,33,38,57,59,78,81.25:17,31,74,78.26:16,30,49,58,59,60,65.27:7,34,60,69,70,73,76,78.28:19,24,27,31,39,56,62,66.29:9,10,23,32,36,57,67,68,71.30:11,13,16,17,23,26,29,34,38,39,60,61,67.31:13,14,17,32,39,46,59,68,70,76,79.32:2,6,8,9,14,32,66,70.33:10,14,15,16,18,19,30,53,69,72.34:8,10,23,32,53,74,80,81,84.35:14,15,17,18,29,47,65,108,113,117.36:7,9,11,43,72,89,92,97,104.37:10,12,27,30,34,37,52,53,66,67,71.38:2,9,13,19,27,34,66,89,96.39:4,5,7,8,32,35,40,78,85.40:36,79,80,83,91.41:9,10,23,37,56,57,63.42:5,10,23,38,75,76,79.43:7,13,46.44:12,14,46,70,76,78,80,82,85,96.45:3,5,8,13,43,99.46:6,9,34,57,73,74.47:3,4,37,43,83,85,91.

White-eyed Vireo:*Vireo griseus*. 1:1.2:6,14.3:15,31,43.4:8,14,16.5:3,9,18,23,30,33,55,59.6:4,67,78,87.7:7,32,36,46,49,60,72.8:26,48.9:3,24,25,45-48,70,71.10:3,4,29,33,54,78.11:58,64,65,67,73.12:33,35,37,46.13:48,76.14:11,38,53.15:17,26,28,30,32,77,78.16:14,34.17:23,27,48.18:26.19:6,11,22,47.20:30,36,45.21:4,27,64.22:25,60,62.23:5,28.24:38,60.25:31,67.26:30,51.27:6,10,34.28:24,27,56.29:23,32,54.30:23.31:32,39,59,64.32:14,32,45.33:7,27,30.34:23,32,56.35:35,41,43,47,96,101,105.36:8,43,44,57,63,65,73,80,81,82,92,96,98,100.37:21,23,24,26,30,37,46,62,81,86.38:12,13,34,47,48,51,54,56,96,98.39:4,5,7,32,35,46,48,94.40:26,33,36,46,49,52,80,91.41:37,44,56.42:16,38,45,75,79,93.43:46,49,51,100,102.44:4,6,46,53.45:3,5,6,7,43,79.46:34,57,76.47:3,4,9,22,78,83,85,91.

* Bell's Vireo:*Vireo bellii*. 6:67.17:47.42:68.

Yellow-throated Vireo:*Vireo flavifrons*.2:6,14.3:15.4:8,16.5:3,19,55.6:4,73,74.7:3,36,49.8:26.9:45,48,49.10:3,27,54.11:58,64,73.12:33.13:33,48,49.14:11,39.15:26,28,30,32.16:34.17:23.18:26,62.19:6,22,47.20:11,36.21:27,64.22:25,31,60,62.23:5,28.24:38,56.25:31,67.26:30,51.27:6,10,34.28:24,56,57.29:24,32.30:23.31:32,39,64.32:32.33:30,50,59.34:15,32,66.35:37,39,43,47,53,65,96,102.36:63,65,73,81,82,100.37:21,26,30,37,46,62,86.38:13,34,47,48,51,56,65,99,101.39:4,32,35,46,64,94.40:26,36,45,46,49,80,91.41:37,44,56,72.42:16,38,45,75,79.43:3,46,51,55,80,103.44:4,6,46.45:3,5,6,7,41,43.46:20,57,66.47:4,9,75,83,85,91.

Solitary Vireo:*Vireo solitarius*. 5:23,27,55.6:33,86.7:49,58,86,93,95.9:3,43,45,50,97.10:3,8,74.11:67(*V.s.solitarius*).12:36.13:20,23,40,41,43,46,49,76.14:11,36,55.15:28,64.17:23,27,46,57,67.18:26,51,55,57.19:22,48,63.20:28,36.21:12,27,64.22:25,67.23:10,12,13,28.24:38.25:26,31,67.26:30,39,40,45,58,63.27:6,20,34,51.28:6,12,24,26,33.29:24,32.30:20,23.31:32,63,64.32:32.33:5,17,27,30,49.34:9,23,39.35:43,47,96,102.36:43,57,65,73,81,92,93.37:26,30,37,46,55,62,86.38:34,47,49,56,100.39:32,46,48,67,89,94.40:26,33,36,45,46,49,52.41:37,44,46,47,52,53,54,89.42:16,38,45,47,55,72.43:2,10,13,22,23,46,80.44:6,46,88,103.45:26,30,31,43,79.46:19,23,24,44,46,57,65,71.47:9,22,24,50,78,91.

Red-eyed Vireo:*Vireo olivaceus*. 2:6,14.3:15,31,38.4:16.5:3,18,23,33,55,59.6:4,67,78.7:3,7,32,36,46,49.8:26,38,48.9:3,18,45-48,50,63,70.10:3,27,54,60.11:54,58,64,73.12:33,39,46.13:41,48.14:11,29,53,55.15:26,28,30,32,57.16:14.17:19,23,67.

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Philadelphia vireo:*Vireo philadelphicus*. 3:28.5:62.6:33.7:46,49.8:42.9:97.10:3.11:67.12:36,71.13:43.14:36,55,56.16:11,13.18:26,62.20:31.21:27,64.22:25,28,60,62.23:4,54.24:38.25:26,31,59,68.26:53-57.27:6,10,34,53.28:24,56,57.29:7,24,29,32,58.30:23,37,58.31:32,45,64,65.32:14,32,44.33:7,30,50,59.34:15,66,68.35:39,47,53,96,101,102,103.36:65,73,81.37:21,30,37,39,46,62.38:34,43,96.39:26,46,89,90,94.40:26,36,80,91.41:37,71,88.42:16,38,95.43:2,46,50,55,76,102,103.44:4,6,46,100,103.45:43,58.46:20,21,23,50,57,64,65.47:8,9,19,22,24,76,78,80,91,100.

Warbling Vireo:*Vireo gilvus*. 2:6.3:15.4:16.5:18,26,33,59.6:4,61,67.7:32,46,49,102.10:3,29,31,45.12:33.14:29,53.15:17,23,28,30,57.16:34,43.17:23,27.18:26.19:11,22,48.20:30,36,44,51.21:27,64.22:19,25,60.23:28.24:38,56.25:31.26:30.27:6,34.28:19,24.29:24,32.30:23.31:32,39.32:32,44.33:30.34:8,23,32,50.35:39,43,47,62,64,96,101.36:65,67,73,96,100.37:21,23,24,26,30,37,55,62.38:34,49,51,56,65,94.39:4,32,46,48.40:26,36,46,49,70.41:37,44,56,71.42:16,38,76.43:46,54,55.44:43,46,100.45:43,76,78,80.46:58,65,69,70.47:4,19,75,78,83,92.

Black-and-white Warbler:*Mniotilta varia*. 2:6,10,14.3:15.4:8,10,16,36.5:3,19,43,55.6:4,68,73.7:7,36,46,49,58.8:26,41,48.9:3,45,48-50,63,69.10:3,33,42,54,58.11:49,54,58,64,73,76.12:33,59.13:20,22,(inside back cover of March issue),48,76.14:11,39.15:26,30,34,36,64.16:14,15,34,43.17:23,47,57.18:26,35.19:6,22,48.20:11,28,30,36.21:8,12,27,51,64.22:26,31,41,60,62,63.23:5,28.24:38.25:31,34,42,54,68.26:30,38,50,53-57.27:7,10,34,67.28:24,27,56,57.29:24,32.30:11,20,23,42.31:32,39,64,65.32:32,47.33:7,27,30,59.34:8,15,32,34,56,66,68,70,76.35:35,37,39,41,43,47,96,101.36:57,63,64,65,73,81,82,92,93,96,98,100.37:21,24,26,27,28,30,37,46,61,62,81,86.38:34,43,47,49,51,54,56,99.39:5,26,32,35,46,48,94.40:26,33,36,46,49,52,57,80,91.41:37,44,89.42:15,16,38,45,48,55,75,77,78,79.43:46.44:4,6,46,84,87.45:3,5,7,21,30,43,58.46:50,58,87.47:6,9,46,47,48,78,80,83,85,92.

Prothonotary Warbler:*Protonotaria citrea*. 2:6,9,14,24.3:15,27.4:16,37.5:3,19,20,28,29,41,42,55,59,60.6:38,71.7:7,23,46.8:41.9:21,30,46,48.10:3,27,28,60,71.11:73.12:33,35,74.13:34,35,42,54.14:11,31-36,42.15:26,28,58.16:45.17:23.18:26.19:6,22.20:11,31,36.21:52,53,54,64.22:26,40,48.23:6,25,28,40,51.24:38,56.25:31,42,52.26:26,30,50.27:7,30,34,49,52.28:24,43.29:24,32.30:23,34,38.31:32.32:32,39.33:13,30,50,54,59.34:22,23,32,75.35:47,49,101.36:63,64,67,73,92.37:21,30,37,46,47.38:13,34,49,51,53,96.39:4,5,26,32,35,46,64,94.40:26,36,46,49,52,91.41:37,44,56,86.42:38.43:46,77,79,80.44:8,46,78,85,87,104.45:3,5,6,40,41,44,104.46:58,65,66,70,91.47:4,78,83,85,92,103.

* Swainson's Warbler:*Limnothlypis swainsonii*. 2:10,14.5:1,3,11.11:37,48,106,111.12:25,27-31,33,59.13:34,43,45.14:38.15:33.16:12,43.17:24,28.19:22,48,63.20:31,36.21:27,49,68.22:62.24:34,38,55.25:31,64,68.26:30,47.28:26,46.30:23.31:32,47.32:32,42.33:30.34:32.35:30,43,47,66.36:65,73,82.37:14,30.38:34.39:4,32,34,46,67.40:36,70.41:3,37,56,71,74,78.42:15,38,68,72,75,78,79,84.43:2,46,54,55,80,98,103.44:4,47,50,53,88.45:44,46,104.46:24,58,65,67,70,88,90,91.47:2,4,5,17,19,24,75,80,83,92,99,103.

Worm-eating Warbler:*Helmitheros vermivorus*. 2:10.3:15.4:16.6:4.7:49,58,71.8:36,37.9:45.10:3,31,57.11:49,54,77.12:33,36,40,58.14:38.15:26,27,30,55.16:34.17:24,47.18:26.19:22,48,63.20:29,30,36,44.21:27,43,52,64.22:26,40,41,47.23:28,52,53,67.24:38,55,56,58.25:31,43,51,54,68.26:30,51.27:7,10,34,45,51,68.28:24,26,44.29:24,32,56.30:23,36,37.31:32,39,47,63,64.32:32.33:7,8,30,51.34:32,50,56,66.35:36,39,43,47,69,96.36:63,65,67,73,81,82,92,100.37:14,21,24,26,30,38,46,47,55,62,81.38:34,49,51,54,56,96.39:5,26,32,35,42,46,48,64,90.40:26,36,45,46,49,52,91.41:37,44,86.42:16,38,45,75,79,80.43:3,46,77,80,100.44:4,6,47,80.45:3,6,30,44.46:58,65,87.47:4,5,22,83,85,92,99.

Golden-winged Warbler:*Vermivora chrysoptera*. 3:38.6:4,34,35.7:36,48,71.8:41,62,76.9:42,45.10:3.11:58,77.12:36,59,71,77.13:43.15:32,56.16:12.17:24.18:26,35,62.19:22,48.20:29,30,36.21:27,64.22:26.23:28,32,52.24:38,55.25:31,53,54.26:48.27:34,45.28:20,24,33.29:24,28,32.30:23,36,37.31:32,46,55,64.32:32.33:13,30,34,48,50,51,59.34:32,51.35:43,47,62,66,96,102.36:20,63,73,81,94,96.37:26,30,38,46,54,56,62,81.38:34,47,51,56.39:26,33,46,90,94.40:26,36,46,49,52,68,79,80,91.41:38,69,72.42:16,38,55,61,75,78,79,80.43:46,77,99,103.44:4,6,47,54,87.45:30,31,44,69,70,80,104.46:58.47:75,80,92,93,103.

Blue-winged Warbler:*Vermivora pinus*. 2:10,11.3:15.4:10,16.7:36,49.8:27,38,41,61.9:63.10:3.11:58,76.12:71,77.14:39.15:26,27,34,36,55,56.17:24.18:25,26.19:5,22,48,63.20:36,54,55.21:64.22:40,41.23:4,26,36,67.24:35,38.25:31,43,51.26:30.27:10,30,34.28:24,56.29:24,32.30:20,23.31:32,55.32:32,51.33:13,30,50.34:32,50,66.35:37,47,52,56,105.36:63,74,81,92.37:14,21,30,38,46,84.38:34,47,49,51.39:5,26,33,35,42,43,46,64,66,85,90,94.40:36,46,49,70,87,91.41:38,44.42:16,39,45,61.43:47,50,103.44:4,6,47,54,84,87.45:3,5,6,41,44,69,70,80.46:58,65,70,90.47:9,78,80,83,92,101,102.

* Golden-winged Warbler X Blue-winged Warbler: *Vermivora chrysoptera X Vermivora pinus*. References to those hybrids which conform to the "Lawrence's Warbler" phenotype are followed by an "L"; references to the "Brewster's Warbler" phenotype are followed by a "B". 12:77B.21:65L.23:8L.27:31L,34L,60L.31:55B.32:42B.33:30L.34:73B.35:52B.36:20L and B.38:30B,34B,49B.39:94B.41:86B.42:48B,61B.44:48B.45:69B.46:91B.

Tennessee Warbler:*Vermivora peregrina*. 1:14,15.2:14.3:15.4:16.5:43,65.6:14,35,73,78,90.7:7,24,101.9:3,97.10:3,4,33,42.11:34,77.12:59.14:55.15:30,77.17:24.18:26.19:22.20:11,29,36.21:9,27,29,51,54,65.22:13,23,26,27,48,59,60,62.23:26,28.24:38,42,57.25:11,31,60,67,68.26:30,46,50,51,53-57.27:7,9,10,30,34,67.28:12,24,26,43,55,56,57.29:24,32,54.30:23,37.31:32,63,64,65,67.32:14,32.33:7,8,30,50,51,59.34:15,32,34,56,66,68,70,73,75,76.35:47,53,62,95,96,102,105.36:57,62,64,73,80,81,82,96,98,100.37:21,27,28,30,33,38,46,47,61,62,81,84,86.38:12,34,43,49,51,54,96,99,100.

39:25,26,33,35,42,43,46,64,66,89,90,94,96.40:25,26,36,46,50,57,79,80,88,91,93.41:38,44,69,79,86,89.42:15,16,39,45,70,93.43:25,47,51,102.44:4,6,47,64,68,84.45:21,30,31,41,44,58.46:2,44,50,58,65,69,90.47:8,9,17,22,83,92.

Orange-crowned Warbler:*Vermivora celata.* 5:27.7:38,49.8:76.10:3.12:36,71.13:20,23.19:49.21:15,29,65.22:47,62,70.23:10.24:34,38.27:7.28:12,13,55,56,57.29:6,24,28,32.30:20,23,36,58.31:45,63,64.32:4,32.33:7,8,12,30,48,63,69.34:7,84,87.35:38,47,50,95,96,102,104,106,113.36:43,73,81,100.37:30,46,62,81,83,86.38:34,49,51,93,94,96,100.39:33,34,46,75,78,89.40:26,50,80,89,91.41:46,69.42:18,39,95.43:13,23,24,54,102.44:47,80,100,104.45:13,21,30,31,42,44,76,78.46:20,23,24,44,67,69,71.47:9,19,22,24,38,45,46,76,78,92.

Nashville Warbler:*Vermivora ruficapilla.* 3:15.6:33.7:49,71,101.8:2,39.10:3.11:34,68,103,104.12:58.14:37,55.15:30.17:24.18:26.19:22,63.20:11.21:9,24,27,54,65.22:26,27,60,72.23:4.24:17,38,57,74.25:31,68.26:30,46,51.27:10,18,30,34.28:24,26,43,54,56.29:24,32.30:23,37,58.31:32,64,65.32:32.33:8,30,59.34:15,28,32,50,66,75.35:15,47,62,96,102,103,104,105,106.36:62,65,73,81,82,96,100.37:21,30,38,46,62,81,84,86.38:34,49,51,56,94,96,101.39:26,33,35,46,66,90,94,96.40:26,36,46,50,80,91.41:38,44,86.42:16,39,45,70,93,95.43:47,51,103.44:4,6,47,64,68.45:21,30,44,80.46:44,58,69,71.47:9,22,80,92.

Northern Parula:*Parula americana.* 2:6,10,14,20.3:15.4:8,16,39.5:3,22,23,43,55,59.6:4.7:36,69,70,73.9:63.10:3,54.11:31,37,58,76.12:33,35,59.14:51,53,55.15:27,34,36,57.16:33,34,43,45.17:24.18:26.19:6,13,22,49.20:29,30,36.21:9,27,65.22:26,40,60.23:6,28.24:38,57,58,59.25:31,44,68.26:30.27:7,34,49,59,67.28:13,24,46,57.29:24,32.30:23,42.31:11,32,63,64.32:32.33:7,8,30.34:32.35:37,38,39,43,47,96.36:65,68,73,81,82,94.37:21,26,30,38,55,81.38:13,34,49,51,53,54,56,99.39:5,33,35,46,48,94.40:26,36,46,50,52,80,91.41:38,44,56,86.42:16,39,45,48,75,79,84.43:7,47,51.44:4,8,47,84.45:3,5,6,30,31,44.46:58,65.47:4,9,17,83,85,86,92.

Yellow Warbler:*Dendroica petechia.* 2:6,10.3:11,15.4:16.5:23,33,55,59.6:4,38.7:7,32,36,46,49.8:27,41.9:25,45,54,70.10:3.11:34,49,54,64.12:33,37,39,58,71.13:41,48.14:7,29.15:17,28,30,32,34,55.16:34.17:24,48.18:26,35.19:5,22,49.20:11,29,30,36,45.21:9,27,65.22:26,27,31,40.23:6,28,32,54.24:38,57.25:27,31,43.26:31,50.27:7,34.28:24,27,55,56.29:24,32.30:15,23,42,54.31:11,32,39,59,64,70.32:32.33:7,8,27,30,32,59.34:33,66.35:43,47.36:64,65,67,69,73,79,81,92,96,100.37:21,26,30,38,48,62,84.38:2,34,49,51,53,54,56.39:5,26,33,35,43,46.40:26,33,36,47,50,52,91,93.41:38,44,69.42:16,26,39,45,48,75,79.43:47,51.44:6,47.45:3,5,30,44.46:34,50,58.47:4,5,9,83,85,86,92.

Magnolia Warbler:*Dendroica magnolia.* 3:15,37.4:16,36.5:43.6:4,35,73.7:7,36,69.8:39.9:3,66,98.10:3,32,33,42,58.12:58.13:46,48.14:55.15:30,32,77.16:34.17:24.18:26.19:22.20:11,29,36.21:9,27,65.22:13,18,26,28,47,49,60,62,63,72.23:28,32,53.24:17,38,59.25:11,13,31,53,60,61,67,68.26:31,48,51,53-57.27:7,10,34,49,51,67.28:12,13,24,43,55,56,57.29:24,32,54,58.30:23,37.31:32,46,63,64,65,67.32:13,14,32.33:8,30,59.34:15,29,33,34,38,49,50,52,56,66,68,69,70,73.35:43,47,53,62,95,96,102,105.36:57,73,81,82,96,98,100.37:21,24,26,27,28,30,33,38,46,47,62,81,84,86.38:2,34,43,49,51,54,56,96,99.39:25,26,33,43,64,66,90,94,96.40:25,26,36,50,57,69,79,80,91,93.41:38,69,86.42:15,16,39,70,93.43:47,51,75,99.44:4,6,47,85.45:30,44,58.46:50,58,87,91.47:9,22,41,92.

Cape May Warbler:*Dendroica tigrina.* 3:15.4:16.5:27.6:4.7:7,36,48.8:39.10:3.12:36,58.14:36.15:29,32,34,74.17:24.18:26,35,62.19:12,13,22.20:36.21:27,65.22:26,28,62.23:28,56.24:38,55,60.25:31,55,68.26:31,51.27:7,34.28:12,24,57.29:24,32.30:23.31:32,39.32:32.33:30,50.34:33,38,52,56,75.35:47,52,105.36:64,65,73,81,82,93,94,98,100.37:30,33,38,62,84.38:34,43,47,51,54,101.39:25,33,46,64,90,94,96.40:26,36,50,69,79,80,93.41:38,47,89.42:39,93.43:22,47,94,95.44:4,6,47.45:44,80.46:43,44,58,65.47:9,22,34,37,38,42,45,47,48,50,75,92.

Black-throated Blue Warbler:*Dendroica caerulescens.* There are 15 references to *D.c.cairnsi* in The Migrant prior to 1950. I have given no special notation to these references,since many of the references after 1950 are also, though not stated, to *cairnsi*, the breeding form in Tennessee. 3:15.4:16.5:55.6:4.7:6,36,58.8:39.9:3,43,45,50.10:3.13:40,41.14:11.15:65.17:6,24,57,67.18:26.19:22,33,49.20:28,36.21:28,65.22:26,62.23:28.24:38.25:31,55,68.26:31,38,39.27:7,10,34,43-44.28:12,24,33,55,56,57.29:8,24,32,56.30:15,23,42.31:32,45,64.32:32,61.33:5,7,8,13,27,30.34:33,34,39,52.35:47,64.36:73,81,82,93,94,100.37:22,26,30,33,38,55,62,86.38:12,34,51,56,100.39:33,46,48,94.40:26,33,36,47,50,79,80.41:38,46,52,53,54,88.42:16,39,55,70,72.43:47,51,79.44:4,6,47,49,50,79,100.45:44,58.46:20,58,69,87,88.47:22,78,92,100.

Yellow-rumped Warbler:*Dendroica coronata.* 1:15.2:4,27.3:8,10,15,28,43.4:6,16,26,28.5:9,43.6:4,8.7:12,36.8:8.9:8,16,17,92.10:3,5,7,33,81.11:6,7,22,23,26,27,49,112.12:8,9,16.13:17,20,24,27,62,75,76.14:3,12,13,39,45,55,56,57,74.15:12,16,30,34,70,74,77.16:34,47,60.17:10,24,65,69.18:26,35,55,57.19:8,22,49,68.20:13,14,15,30,36,60,63.21:12,13,14,15,28,65,76.22:13,14,16,18,23,26,28,67.23:13,28,51(*D.c.auduboni*),59,70.24:38,78.25:11,16,31,78.26:16,25,31,50,63.27:7,10,17,18,20,34,53,67,73.28:6,9,12,24,32,55,56,66.29:9,10,24,32,54,71.30:10,23,34,37,67.31:13,16,17,18,32,64,70,77.32:10,32,70.33:8,10,18,30,59,63,69.34:8,10,15,33,34,66,72,76,78,80,84.35:15,39,41,47,96,104,105,106,114.36:8,9,10,11,14,43,57,64,67,73,81,89,92,96,98,100.37:6,8,9,10,21,24,26,30,33,38,46,62,66,81,84,86.38:2,18,19,20,21,23,34,49,52,54,56,89,96,99,103.39:26,33,35,46,64,66,78,90,94.40:20,24,26,36,47,50,69,80,84,91.41:9,23,38,69,86.42:10,16,22,39,70.43:13,24,47.44:4,6,12,27,29,31,47,49,53,103.45:13,26,29,30,41,44,58.46:9,19,50,58,71.47:9,37,80,92,100.

* Black-throated Gray Warbler:*Dendroica nigrescens.* 28:7(Mississippi).43:67.

Black-throated Green Warbler:*Dendroica virens.* 1:15.2:14.3:15,28.4:8,16,36,38,39.5:43,55,62,65.6:4,53.7:7,36,46,49,58,70,73,101.8:15,41,52,58,61.9:3,45,50,63,98.10:3,31,33,42.11:58,68(*D.v.waynei*),76,77.12:36,58,71.13:46.14:55,56.15:16,30,34,67.17:10,24,48,57,67.18:26.19:22,49.20:28,30,36,45.21:28,51,53,65.22:13,26,31,40,41,60,62.23:28,54.24:9,38,57.25:31,53,68.26:31,38,48,50,51,53-57.27:7,10,34,49,67.28:13,24,55,56.29:24,32,54.30:15,23,37.31:32,46,64.32:32.33:8,27,30,59.34:8,15,33,34,38,51,52,66,73.35:39,43,47,53,62,96,101,105.36:64,65,67,73,81,82,92,93,96,98,100.37:21,24,26,27,30,38,46,62,81,82,84,86.38:34,49,52,54,56,66,96,99,100.39:26,33,43,46,48,64,66,89,90,94.40:26,33,36,47,50,52,69,80,91.41:38,44,52,53,54,69,86,89.42:16,39,45,48,55,75,79,83.43:47,80,99,104.44:4,6,22,47.45:30,44,58.46:19,50,58.47:9,45,78,83,92.

Cerulean Warbler:*Dendroica cerulea.* 1:2.2:10.3:15.4:16.5:3,27.6:4.7:3,36,43,49,73.9:45.10:33,60.11:49,58,64.12:39,58.13:34,43.15:27,30,34,36.16:34.17:24.18:26.19:6,22,49,63.20:11,12,36.21:28,65.22:26,32,41,43,48.23:28,32.24:38,55,58.25:31,43.26:31,47,50,51.27:7,34,51.28:24,26,44.29:24,32.30:23,37.31:32,39,64.32:32.33:30,59.34:33.35:36,43,47.36:62,64,73,81.37:21,26,30,38,62.38:34,49,52,65,67,99.39:5,33,35,42,46,64,94.40:26,37,47,50.41:38,44,47,56,57,74.42:39,45,75,77,79.43:3,47,79.44:4,6,47,80,87.45:3,5,6,7,30,41,44,80.46:58,70,91.47:4,9,22,78,80,85,92.

Blackburnian Warbler:*Dendroica fusca.* 3:15,28.4:16.5:23,43.6:35,38,78.7:7,36,48,49,98,101.8:41.9:4,43,45,66,98.10:58.11:76,77.12:59,60,71.13:41,46.14:55.15:30,32,64.17:24,57,67.18:26.19:22,49.20:11,12,29,36.21:28,51,65.22:26,49,60,62.23:28,32,53,56.24:17,38,57,60.25:31,53,68.26:31,39,48,50,51,53-57.27:7,10,34,45,49,67.28:12,25,33,54,55,56,57.29:25,32,54,58.30:15,23,37,42.31:32,39,46,64.32:32.33:8,30,50,59.34:15,33,34,38,50,52,56,66,68,69.35:43,48,53,62,96,102,104,105.36:64,66,73,81,82,93,96,98,100.37:21,24,26,27,30,38,62,81,84,86.38:34,47,49,52,56,96,99.39:26,33,35,43,46,66,67,89,90,94.40:26,37,47,50,69,80,91,93.41:38,44,52,53,54,69,86,88.42:16,39,45,55,70,75,76,79.43:3,47,51,55,77,99.44:4,5,6,47.45:30,44,58.46:19,50,58,90.47:9,16,78,92.

Yellow-throated Warbler:*Dendroica dominica.* 2:9,11,14.3:15,29,49.4:8,16,37.5:3,19,42,43,55,59.6:4,78.7:7,36,46.8:27.9:45,50.10:3,4,27,33,54,60,62.11:58,73.12:26,33,45.13:35.14:11.15:30,36.16:11,14,38,43,45.17:24,31.18:26.19:6,12,22,49.20:31,36,55.21:28,49-50,68.22:26,28,31,41,44,62.23:6,28.24:22-25,38.25:31,43.26:31,50.28:46.29:25,33.30:23.31:32,63,64.32:32.33:8,30,47,50.34:8,33,50,56.35:35,37,39,43,48,96.36:62,64,66,74,82,96.37:21,30,38,81,84.38:34,47,49,52,94.39:5,33,35,46,48,64,67,90,94,96.40:26,37,47,50,52,80,91,93.41:38,44,46,47,56,57,72.42:16,19,39,45,48,75,78,79,84.43:5,43,47,55,104.44:4,47,79,80,100.45:3,5,6,7,41,44.46:58,65.47:4,92.

Chestnut-sided Warbler:*Dendroica pensylvanica.* 3:15.4:16,39.5:23,43,55.6:4,73.7:86,101.9:4,31,43,45,50.10:3,33,42.11:49,77.12:59,71.13:40,41,46.15:34,64.16:34.17:6,24,57,67.18:26.19:22,49.20:11,28,36.21:28,52,65.22:26,60,62.23:28,32,53,56.24:17,38,57.25:11,12,32,53,55,60,67,68.26:31,39,48,51,53-57.27:2,34,43-46,67.28:11,25,33,43,55,56,57.29:25,33.30:23,42.31:32,59,64.32:32.33:8,30,49,50,59.34:15,33,34,38,39,49,50,51,52,56,66,68,69,70.35:36,39,43,48,53,62,96.36:57,64,66,67,74,81,82,92,94,96,98,100.37:21,22,24,26,27,28,30,38,46,55,62,86.38:34,49,52,56,96,99.39:26,33,43,46,48,66,67,91,94.40:25,26,37,47,50,52,69,79,80,91.41:38,53,54,68,74,79,86,89.42:16,28,39,55,70,75,76,77,80,93.43:9,47,51,80,99.44:4,6,47,79,84,87,88,100.45:30,44,58.46:50,58,71,87,89.47:6,9,22,78,92,101,102.

Bay-breasted Warbler:*Dendroica castanea.* 3:15.4:16.5:43.6:4,78.7:36,101.8:37.10:3,33.12:71.13:67.14:39.15:77.17:24.18:26.19:22.20:36.21:28,65.22:26,49,60,62.23:28,32.24:38,42,57,60.25:11,32,53,67,68.26:31,50,53-57.27:7,10,34,67.28:12,25,55,56,57.29:25,33.30:15,23,37.31:33,39,59,64,65.32:32.33:8,30,50,51,59.34:15,33,34,37,66,68,69,70,75.35:36,48,53,62,95,96,105.36:57,64,65,74,81,82,94,96,98,100.37:21,27,30,38,46,61,81,83,86.38:34,43,47,49,52,54,96,99,100,101.39:26,33,43,64,66,91,94.40:26,37,57,79,80,91.41:38,44,46,69,79,89.42:15,16,19,39.43:47.44:4,6,47.45:30,44.46:44,50,58,90.47:8,9,17,22,83,84,85,92,100.

Blackpoll Warbler:*Dendroica striata.* 2:14.3:15.4:16.7:7,36,46,49.8:2,6.10:3,31,33.11:49.12:26.13:46.15:30,32,34.17:24.18:26.19:22.20:36.21:28,65.22:26,60,62.23:28,32.24:38.25:27,32,54.26:31.27:7,34.28:25.29:25,33.30:23,38.31:33,39,59,63,64.32:32.33:30,59.34:23,29,33,35,38.35:40,43,48,53,62,95,96,105.36:64,67,74,80,81,94,98.37:21,24,26,30,33,38,61,62.38:34,43,47,49,52,54,56.39:25,26,33,35,42,43,46,64,66,67.40:25,26,37,47,50,69,79,80.41:38,44,69,89.42:16,39,45,51,70,75,78,95.43:47,51,97,100.44:6,47,53,85.45:44,104.46:20,23,49,50,58,70,90.47:6,8,9,19,22,78,79,80,83,84,85,92,103.

Pine Warbler:*Dendroica pinus.* 2:5,10,11.3:10,15.4:16,21,39.5:3,10,11,27,46.6:4,73,80.7:12,36,49,73.8:6,14,27,40,41.9:12,15,16,45,46,48.10:3,8,54,62.11:28,49,58,68,73,74.12:8,33,40.13:33,62,63.14:74.15:14,16,27,34.16:43.17:24,35,46,47.18:8,26.19:22,50.20:30,36.21:13,26,65,76.22:16,26,28,31,40,41,62.23:13,28.24:15,16,38,78,80.25:32,34,55,68,76,78.26:31,63.27:7,18,20,34,73.28:7,10,14,25,66.29:8,25,33,71.30:23,67.31:16,33,39,63,64,77.32:32,70.33:30,50,63,69.34:33,84,87.35:35,37,39,43,48,64,114.36:43,64,66,74,86,90,92,98,100.37:8,14,26,30,38,66,81.38:18,20,34,54,89,94,100,101.39:21,33,42,46,48,64,78,94,96.40:23,37,45,50,52,68,69.41:9,38,44,69.42:10,39,43,48,75,79.43:13,47,77.44:8,12,47,79,80,85.45:3,13,21,24,26,29,44,76.46:9,46,48,58,70,71,91.47:19,37,48,50,80,83,85,92.

* Kirtland's Warbler:*Dendroica kirtlandii.* 27:53.

Prairie Warbler:*Dendroica discolor.* 2:10,11,14.3:15.4:16.5:3.6:4,53,72,73.7:32,36,46,58.8:27,41.9:19,31,45,47.10:3,54.11:54,58,64,68.12:33,37,45.13:33.14:11,39.15:23,26,36.16:43.17:24,46,47.18:26.19:5,6,22,50.20:11,30,36.21:9,28,65.22:26,31,41.23:5,26,29,32.24:38,55.25:32,43,54.26:31.27:7,10,30,34.28:12,25,27.29:25,33.30:23.31:33.32:32.33:30,50.34:33,34,50,56.35:39,41,43,48,64.36:57,62,64,66,67,74,82,100.37:21,24,26,30,38,61,81,84,86.38:34,49,52,54,56.39:5,33,35,42,46,48,64,91,94,96.40:37,45,47,50,87,93.41:38,44.42:16,39,45,75,79.43:47,54,55.44:4,8,47,68,85,88.45:3,6,41,44,99,104.46:35,58,65.47:6,78,83,85,92,103.

Palm Warbler:*Dendroica palmarum.* 1:15.2:9,14.3:15,43.4:16.6:92.7:36,46,49.8:41.9:97.10:3,8,33,76,77 and 78(*D.p.hypochrysea*).11:22 and 24(*D.p.hypochrysea*),49,104.12:9.13:20,62,63,75.14:19,39,56,57,74.15:30,34,71,74.16:34,60.17:24,32,63,65.18:26,35(*D.p.palmarum and D.p.hypochrysea*),55,61.19:22,50.20:36,63.21:11,14,28,54,65.22:16,20,26,60,62.23:29,32,70,73.24:38.25:32,53,68.26:31,46,51,60,63.27:7,10,20,34,53,67,73.28:14,25,55,56.29:25,33,54,71.30:11,23,62,67.31:33,64,67,71,77.32:32,71,72.33:8,10,31,59,65,69.34:8,15,33,34,38,50,66,68,69,70,73,75,84,87.35:16,43,48,96,104,105,114.36:43,57,64,74,80,82,92,96,98,100.37:6,21,24,27,31,33,38,47,61,62,81,84,86.38:2,20,34,49,52,86,89,94,96,99,100,101,103.39:19,21,22,26,33,35,43,46,66,89,94,96.40:23,26,37,45,50,80,91.41:38,86.42:7,10,16,39.43:13,14,24,25,47,51,55.44:4,6,9,12,47,103.45:13,20,24,30,41,44,58,80.46:9,44,47,48,50,58,65,71.47:19,24,37,45,46,48,50,80,92.

Ovenbird:*Seiurus aurocapillus.* 1:15.3:15,28.4:16,51.5:3,19,23,43,55.6:4.7:7,36,46,49,72,101.8:27.9:45,48,66.10:3,4,31,42,74.11:37,49,54,58,73.12:27,65.13:41.14:42,45.15:64.16:11,34.17:24,58.18:26,35 and 36(*S.a.aurocapillus,S.a.furvior and S.a.cinereus*),38,62.19:22,27,50.20:11,12,13,28,30,36,45.21:12,28,66.22:26,27,31,60,61,62.23:29.24:38,57.25:11,12,32,

44,53,60,67,68.26:19,31,39,48,53-57.27:7,10,34,67.28:12,25,26,43,55,56,57.29:26,33.30:15,20,23,37,42.31:33,39,46,63,64,65,67.32:13,32,43.33:6,8,27,31,59.34:15,33,34,56,66,68,69,70.35:36,39,41,43,48,53,64,95,96,101,104,105.36:57,62,64,66,67,74,80,81,82,92,93,100.37:14,21,24,26,27,28,31,33,38,46,61,62,81,84,86.38:34,43,49,52,54,56,96,100.39:5,25,26,33,35,42,46,48,64,91,94.40:25,26,33,37,45,47,50,52,69,79,80,91.41:38,44,69,86.42:15,16,39,45,55,75,77,78,79,80.43:3,5,47,51.44:4,5,6,47.45:3,6,7,29,30,31,58.46:19,50,58,67,71.47:6,8,9,17,83,85,92.

Northern Waterthrush:*Seiurus noveboracensis*. 4:39.6:74.7:71.8:85(*S.n.notabilis*).10:3,46(*S.n.notabilis*).11:31,103.12:36,71.13:43(*S.n.notabilis*),46,67.14:36,39,56.16:34,39.17:24.18:36(*S.n.limnaeus*).20:11.21:9,24,28,43,52,66.22:26,28,60,62.23:24,25,29,53.24:34,38,57.25:27,32,53,54,68.26:26,31,50.27:7,10,34,49,67.28:25,46,55.29:25,33,55.30:23.31:33,64,65.32:33,44.33:8,21,31,51.34:15,33,34,49,50,51,56,66,68,69,73.35:15,40,43,48,62,96,103,105.36:57,74,81,82,100.37:21,26,27,31,38,46,47,54,62,81,83,86.38:34,49,52,56,66,94,96,101.39:26,33,35,43,46,91,94,96.40:26,37,50,80,91.41:38,44,71.42:16,39,45,47,70,72,93.43:10,13,14,22,23,47,54,55,80,104.44:4,6,11,12,27,47,51,53,54.45:30,44,58,80,104.46:58,65,69.47:9,22,92.

Louisiana Waterthrush: *Seiurus motacilla*. 1:5.2:6,9,14.3:15,49.4:8,16.5:3,19,23,55.6:4.7:7,33,36,46,49.8:27,42.9:4,45,48,53.10:3,33,36,42,43,54.11:49,58,73.12:27,29,30,33.13:32,34.14:42.15:17,27,30,32,34,36,55.16:11,14,15,34,43,47.17:24,58.18:26.19:6,22,50.20:11,29,30,36.21:9,28,66.22:15,16,21,40,41.23:11,29,67.24:15,35,38.25:26,27,32,43,53,75,78.26:31,39,50.27:7,17,18,34.28:8,25,45,46,56,61.29:25,33,55.30:23,42.31:12,33.32:33,39.33:27,31.34:8,33.35:37,39,41,43,48.36:64,66,68,74,80,92,93.37:21,26,27,38,47,48,54.38:13,34,49,52,54,56,66,96,101.39:5,33,35,43,46,48,64,85,96.40:37,47,50,52,89,91.41:38,44,47,57.42:39,45,55,75,79,83,93.43:5,25,43,47.44:27,47,53,85,87.45:3,6,7,21,41,44,76.46:23,58,65,69,70.47:4,78,83,85,92.

Kentucky Warbler:*Oporornis formosus*. 2:9,11,14.3:15,28,30,38.4:16,51.5:3,19,56.6:4,73.7:7,36,46,49.8:27,29,38,41.9:31,45,48.10:3,54,60.11:37,59,64,73.12:33,45.13:33,73.14:11.15:26,32,34,35,57.16:34,45.17:24.18:26.19:6,22,27,50.20:11,12,29,30,36.21:28,66.22:26,29,31,41,62.23:6,21.24:38.25:32,43,53,68.26:31.27:7,10,34.28:25,27,46,56,57.29:25,33.30:23,42.31:33,39,64.32:13,33,47.33:8,31,50,59.34:8,15,33,50,56,66.35:39,41,43,48,53.36:57,62,66,67,74,81,82,102.37:21,24,26,31,38,47,61,62,81.38:13,35,49,52,54,56,96.39:5,9,26,33,35,46,64,94.40:26,37,47,50,57,79,80.41:38,44,56,70.42:16,39,45,75,77,78,79.43:3,47,51,55.44:4,6,8,47,68.45:3,6,7,30,44,58.46:21,35,50,58,65.47:4,9,83,85,92.

Connecticut Warbler:*Oporornis agilis*. 7:38.10:3.13:73.14:27-28.15:31.19:27,28.20:11,12,31,33,36.21:52,66.22:19.23:25,29.25:52,54.27:7,34,52,57.28:43.29:25.30:23,36.31:45,59.32:10,33,47.34:28,33,38,50,52.35:116.36:62.37:38,54.38:43,52,93,96,101.39:33,34,42,63,66,94,96.40:26,37,44,47,80,93.41:38,86.42:39,45,70,95.43:47,51,54,77,79,100.44:47,51,53,100.45:30,31.46:67,90.47:17,24,76,83,100,102.

Mourning Warbler:*Oporornis philadelphia*. 3:15,28.4:19,39.5:27.6:33,71.7:38.10:3,31,33.12:36.13:43,46,72.14:37.15:30,55.16:39.17:28,32.18:26,36.20:11,31.21:43,66.22:23,26,28,60.23:29,32,54.24:52,68.25:50.27:7,10,34.29:25,55.31:46,63,64.32:33,41,42,44.33:7,8,13,59.34:33,34,38,49,50,66,72.35:15,95,96.36:64,94.37:21,24,31,33,46,47,62,81,83.38:65,67,93,96.39:26,34,35,64,66,89,96.40:26,68,69,70,88,91.41:38,86.42:16,68,70.43:47,48,51,54,77,79,100,104.44:43,47,51,85,87,99,100.45:58.46:20,69.47:19,76,83,100,103.

Common Yellowthroat:*Geothlypis trichas*. 2:6,9,10,14.3:15.4:16.5:3,18,23,38,42,43,56.6:5,20,73,90.7:7,18,33,37,46,49.8:2,8,27,29,41,51,76.9:19,25,31,45-48,54,69,70.10:3,8,29,54,66.11:30(*G.t.brachidactylus*),37,49,59,64,68(*G.t.brachidactylus*),73.12:33,45.13:32,33,44,48.14:7,11,53,55,56.15:17,27,28,30,34,36,57.16:34,45.17:10,11,24,28.18:26,55,59.19:6,22,50.20:11,28,30,36.21:4,28,46,66,76,77.22:12,26,27,31,41,60,62,63,67.23:5,29,67.24:38.25:32,44,51,52,61,68.26:31,53-57.27:7,10,34.28:25,56,57.29:25,33.30:15,20,23,42.31:33,39,59,63,64.32:4,33.33:8,31,59.34:15,33,34,50,56,66,68,69,70.35:16,37,39,41,43,48,69,72,96,101,105.36:57,64,66,67,74,80,81,82,93,94,96,98,100.37:21,24,26,27,28,31,33,38,46,61,62,81,84,86.38:2,12,13,35,49,52,54,56,96,99,103.39:4,5,7,8,26,33,35,42,43,46,48,64,91,94.40:26,37,47,50,52,80,87,91.41:38,44,56,70,86.42:16,39,45,75,79,93.43:5,10,13,15,16,22,23,24,25,47,77.44:4,6,12,27,32,47,85,101.45:3,6,7,21,30,44,58.46:6,9,35,44,58,65.47:3,4,9,39,78,83,85,92.

Yellow-breasted Chat:*Icteria virens*. 2:10,14,24.3:15.4:16.5:3,18,23,56.6:2,5,68,70,73,87.7:6,37,49,53.8:6,27.9:19,27,31,45-47,54.10:3,54,78.11:37,54,59,64,73.12:33,37,45,74.14:7,11,53.15:26,27,30,32.16:34,45.17:24,48.18:26,61.19:6,22,51.20:11,12,28,30,36,60.21:28,66.22:26,41,62.23:5,26,29.24:11,39.25:16,32,44,54,68.26:31.27:7,10,34,59.28:25,27,56,57.29:25,33.30:15,20,24,41,42,54.31:33,39,59,64.32:14,33,54.33:7,8,31,59.34:15,23,33,50,56,66.35:39,41,43,48,96,102,104,105.36:57,64,66,67,74,80,81,82,93,96,100.37:21,24,26,31,38,47,61,62,82.38:34,47,49,52,54,56,103.39:4,5,8,26,33,35,46,48,64,75,94.40:18,19,26,37,47,50,52,80,87,91,93.41:38,44,56,70.42:15,16,39,45,70,75,77,79,80.43:22,27,47,51,77.44:4,6,8,47,85,101.45:3,6,7,21,30,44,58.46:6,9,11,35,50,58.47:3,4,9,45,83,85,92.

Hooded Warbler:*Wilsonia citrina*. 2:9,10,11,14.3:15,40,49.4:8,16,20.5:19,23,29,56.6:5.7:7,37,46,49.8:27,41.9:1,4,45,46,64.10:3,33,54,60.11:49,54,59,64,111.12:30,33.13:48.14:55.15:26,32,34,36.16:34,45.17:10,11,24,58.18:27.19:6,22,51.20:13,29,30,36.21:28,66.22:26,31,41,62.23:6,25,29.24:39.25:32,44,53,68.26:31,39,40,53-57.27:7,34,45,51.28:12,25,27,56,57.29:25,33.30:20,24,42.31:33,39,64.32:33.33:31.34:33,56,76.35:37,38,39,41,43,48,53,64,96.36:57,64,66,67,74,82,92,93,100.37:21,26,31,38,62,81,86.38:13,35,49,52,54,56,65,96.39:5,33,35,42,43,46,48,64,94.40:26,37,45,47,50,52,80,91.41:38,44,56,57.42:16,39,45,55,75,77,78,79,84.43:3,5,47,99,100.44:4,8,47,104.45:3,6,44,67.46:35,58,89.47:4,83,85,92.

Wilson's Warbler:*Wilsonia pusilla*. 5:43,62.6:73,91.7:37,59,69,101.8:2,36,52,76.9:67.10:3,57,58.11:76,77.12:36,71,76.13:43.14:37,52.15:33,55.17:9,10,11,24.18:27,36.20:11,12,33.21:9,54,66.22:26,60,72.24:17,39,55,57,75.25:32,53,68.26:31,48,50.27:7,10,51,68.28:13,43,56,57.29:25,33,55.30:24,37,38.31:33,46,63,64.32:33.33:7,8,31,48,51,59.34:8,33,38,50,51,66,72,75.35:15,41,43,48,53,96,102,105.36:69,81,82,100.37:21,31,33,38,47, 54,62,81,83,84.38:35,99,101.39:26,33,64,66,89,91,94,96.40:26,68,69,70,91,93.41:38,86.42:16,39,45,70,72,75,79,91.43:23,47,55,79,80,99,100.44:47,51,53,54,87.45:30,44,76,78,80.46:23,50,58,70,91.47:22,24,31,78,80,83,92,102.

Canada Warbler:*Wilsonia canadensis.* 5:43,62.6:5,73.7:37,43,59,69,86,101.8:36,39.9:42,45,52.10:4,33,42,57,58.11:76,77.12:58.13:41,46.14:56.15:33,34,55,64.16:34.17:6,24,58.18:27,36.19:22,51.20:11,12,28,36.21:28,52,54,61.22:26,28,47,48,49,62.23:29.24:39,57,59.25:32,54,55,68.26:31,39,40,48,51.27:7,10,35,45,49.28:25,33,56.29:25,28,33,54,58.30:24,37,38,42.31:33,39,46,59,64.32:33.33:6,7,8,31,48,50,59.34:15,29,33,38,39,52,66.35:41,43,48,53,62,63,64,96,105.36:57,64,66,67,74,81,93,103.37:26,31,38,47,54,55,62,81.38:35,52,54,56,96,99.39:26,33,46,48,66,67,95.40:26,33,37,45,50,57,69,80,91.41:38,53,70,86.42:16,39,45,55,68,70,75,79,80,93.43:47,79,80,99.44:4,6,47,87.45:30,44,78.46:50,58,65,69.47:22,80,83,92.

American Redstart:*Setophaga ruticilla.* 2:9,10,11,14.3:15.4:16,20.5:43,56,59,62.6:5,73.7:7,37,46,49,69.8:41,48.9:4,25,45,48,52.10:4,32,42,54,60.11:37,49,54,73,76.12:25,33.13:48.15:30,34.16:34,43,45.17:11,24.18:27,61.19:7,22,51.20:11,29,30,36.21:28,53,66.22:26,31,41,43,60,62.23:29,32.24:39,57,59.25:27,32,44,56,67,68.26:31,46,51.27:8,10,35,67.28:12,25,55,56,57.29:25,33.30:20,24,38,42.31:11,33,39,59,63,64,65.32:33.33:8,31,50,59.34:15,33,34,56,66,68,69,70.35:37,38,43,48,53,96,101,104,105.36:62,64,66,67,74,81,82,92,93,94,96,98,100.37:21,26,27,28,31,33,38,47,56,62,81,84,86.38:35,49,52,54,56,65,96,99,100.39:5,26,33,35,43,46,95.40:26,37,47,50,79,80,91,93.41:38,44,56,89.42:16,39,45,55,75,78,79,80.43:3,47,51.44:4,6,36,47,80.45:3,6,7,30,44,58,78.46:50,58,69.47:4,9,83,92.

House Sparrow:*Passer domesticus.* 2:2,18,30,31.3:8,13,49.4:6,28.5:3,9,23,29,56,59,60.6:8.7:8,12,35,56.8:8,27,63.9:8,16-18,25,46-50,70,88,92.10:4,5,7,33,54,62,81.11:8,22,23,59,73,94,96.12:8,9,33,47.13:17,20,62,75.14:18,51,53,74.15:9,15,16,26,57,59,70.16:34,60.17:24,48,65,69.18:27,38,39,40,55,57.19:7,12,22,51,68.20:15,36,63.21:28,31,66,76.22:26,28,67.23:29,70.24:39,79.25:17,32,78.26:31,49,63.27:8,15,35,60,68,70,73.28:11,19,25,30,66.29:9,25,33,54,57,71.30:16,24,26,33,34,39,60,67.31:14,17,33,36,37,39,44,59,70,77.32:15,17,33,47,71.33:10,31,69,72.34:12,33,49,70,84,90.35:48,114.36:43,74,90,92,97.37:38,66,71,72,76.38:2,9,13,35,89.39:4,5,7,8,33,35,73,78,85.40:37,81.41:9,38,56,57.42:5,10,14,19,23,39,75,79.43:13,18,20,47.44:12,47,70,82,96.45:3,6,8,13,44,98.46:4,9,14,35,58.47:3,4,15,37,43,61,83,85,92.

Bobolink:*Dolichonyx oryzivorus.* 2:14,18.3:15,31.4:16,20.5:27,28,45.6:50.7:6,35,49,73.8:36,37.9:30,31.10:4,31,33.12:5,7,60.14:38.15:33,58.16:34.17:24.18:27.19:22.20:11,36.21:28,50,66.22:26,47,48.23:25,29,30,53,56.24:13,39,55,75.25:26,32.26:31,47.27:8,10,35,51,52.28:13,25,46.29:26,28,33,34,55,59.30:18,24,30,36.31:33,43,47,64,70.32:4,33,43.33:7,8,10,31,51,59.34:7,17,18,19,33,34,49,50,54,56,66,75.35:31,36,43,48,55,62,66,72,96,105,121.36:60,61,64,66,67,74,81,82,94,96.37:21,23,24,26,31,38,62,86.38:35,47,49,52,54,56,67,68,101.39:33,43,46,66,95,96.40:26,37,47,80.41:38,70,83,86,89.42:39,45,70,75,79,80,91,95.43:47,51,54,55,100,102.44:6,43,47,53,54,85,87,103,104.45:3,6,44,64,78,102,103.46:20,23,58,66,67,69,90.47:19,22,75,78,92,102,103.

Eastern Meadowlark:*Sturnella magna.* 1:15.2:4,6,14,18.3:8,15,43,49.4:2,6,8,16,24,28.5:3,9,19,23,46,56.6:8,33,68.7:12.8:8.9:8,16-19,26,45-48,50,63,69,70,91,92.10:4,5,7,81.11:22,23,31,54,59,64,75,112.12:8,33,37,46.13:17,20,34,44,55,62,74,75,76.14:5,11,18,29,48,53,77.15:9,16,27,28,57,70,71,74,77,78.16:34,60.17:24,65,69.18:22,27,55,57,62.19:7,11,22,51,68.20:28,30,36,52,63.21:28,66,74,76.22:15,16,26,28,46,67.23:5,26,29,59,70.24:39,53,79.25:27,32,78.26:16,31,63.27:8,35,48,73.28:25,49,56,66.29:9,26,33,54,71.30:16,24,30,34,67.31:14,16,33,39,59,70,77.32:6,33,65,71.33:10,31,70,72.34:12,33,81,84,90.35:48,69,114.36:43,52,57,74,90,92,97.37:27,38,66,71.38:2,9,13,35,89.39:4,5,7,8,33,35,78.40:37,54.41:9,38,56.42:10,39,47,76,79,82,84.43:13,47,54,77.44:4,12,14,47,85,101.45:3,6,7,13,44.46:9,35,58.47:3,4,34,37,83,84,85,92.

* Western Meadowlark:*Sturnella neglecta.* 12:16 and 59(Mississippi).14:77.18:61 (Mississippi).21:50.22:21,71.23:10,67 (Mississippi).24:9(Mississippi),79,80.25:16.26:58,63.27:16,73.28:6,7,26,66.29:7,71.30:24,30,67.31:10,77.32:4 (Arkansas).33:70.34:7.35:114.36:90.37:66,67.38:86,94.39:43.40:54 and 55(Arkansas).42:10,82(Arkansas),91.44:21,22.46:65.47:38.

* Yellow-headed Blackbird:*Xanthocephalus xanthocephalus.* 27:56.30:15.38:61.46:15.

Red-winged Blackbird:*Agelaius phoeniceus.* 2:5,6,14,18.3:8,11,15,27,43,49.4:6,16,49.5:3,11,13,14,18,23,26,27,28,29,42,56,58,60,64.6:5,8,22,36,71.7:3,12,47,53,101,103.8:8,17,21,63.9:8,14,15,45,46,49,59,63,70.10:4,5,7,13,14,29,55,58.11:8,22,26-28,31,54,64,90,106,112.12:8,9,19,33,37,73.13:17,20,32,33,47,54.14:77(*A.p.fortis*),78(*A.p.arctolegus, and A.p.phoeniceus*).15:9,12,27,28,57,67,70,77.16:34,47,60,62,63.17:7,12,19,24,65,69.18:12,27,56,57.19:7,11,22,51,63(*A.p.fortis*),68,69.20:30,36,63,64.21:13,14,28,46,66,76.22:9-11,14,16,17,18,19,26,65,67.23:4,5,11,14,17-22,26,29,40,46,58,59,68,70,71,72.24:5,13,16,17,30,31,32,33,39,79,80,81.25:17,18,19,27,32,74,75,78.26:31,58,59,63.27:8,17,19,35,54,69,73.28:12,14,25,31,32,62,66.29:10,26,33,54,57,67,71.30:11,16,17,24,34,59,60,62,67.31:13,17,18,33,39,59,77.32:33,44,67,71.33:10,15,18,31,64,70,72.34:8,11,20,22,33,66,76,78,79,85,89.35:15,17,39,41,43,48,55,64.36:7,9,10,12,43,64,74,90,92,97,98.37:8,9,10,12,23,31,38,52,62,66,71,84.38:2,9,10,13,22,25,27,35,45,53,54,61,89.39:4,5,8,15,18,22,23,33,35,78,85.40:15,37,47,54,83.41:9,38,56,59,63,64.42:5,10,25,26,39,76,78,79,80,85.43:7,13,43,47,88.44:5,6,12,47,85.45:3,6,8,13,30,44,99,103.46:9,12,35,58.47:3,4,37,83,84,85,92.

Orchard Oriole:*Icterus spurius.* 2:6,14.3:15.4:16.5:4,19,56.6:5,33,35,68,70,83.7:3,7,33,35,46,49.8:27.9:46,47.10:4,55.11:49,59,64,113.12:33,37.14:11,29,39,53.15:27,30,32,57.16:11,34.17:24,28.18:27.19:7,22,52.20:30,36.21:9,28,66.22:19,26,27,28,46.23:6,29.24:39,54,55.25:32.26:31,50.27:8,35.28:25.29:26,33.30:24,36.31:33,39.32:33,39.33:31,47.34:23,33.35:36,38,39,42,43,48,62.36:64,66,67,68,69,74,92,100.37:21,23,24,26,27,38,48,49,50,51,54,61.38:13,35,47,49,52,54,56,67.39:4,5,33,35,43,46,85,91,95,96.40:37,45,47,50,91,93.41:38,44,56,70,86.42:15,39,45,76,79,95.43:25,47,51,77,102.44:19,20,43,47,85,103.45:3,6,7,8,44,72.46:19,23,36,58,78.47:4,22,83,85,92.

Northern Oriole:*Icterus galbula*. 2:6,14.3:15,27,44.4:16.5:4,18,56.6:5,35.7:7,46,49.8:2,27.10:4,29,30,66.11:49,54,64,113.12:33,37.14:11,53.15:27,30,57.16:34.17:24,28,48.18:27.19:22,52.20:11,30,36.21:9,28,66.22:26,46.23:29.24:39,56,59.25:32,55.26:31.27:8,35,52,59,68,71,73.28:25,26,32,43.29:6,26,33,57.30:24,30.31:33,43.32:33,44,46.33:7,8,31,47,49,50,59.34:12,23,33,54,66,76,85,89.35:17,31,36,38,40,42,43,48,53,62,63,64,66.36:10,12,64,66,67,74,81,91,94,96.37:7,21,23,24,26,31,38,47,50,62,66,69,81,84.38:13,35,49,52,54,56,66,94,96,103.39:5,9,19,20,22,26,33,46,48,50,64,66,67,89,95,96.40:18,19,20,26,37,47,50,91,93.41:38,44,56,70,71,75,86.42:39,45,76,79.43:22,27,47,75,77,102.44:6,31,47,84.45:30,44,58,72,78.46:36,44,58,69,90.47:4,19,22,37,39,46,92,99,102.

Rusty Blackbird:*Euphagus carolinus*. 2:14.3:8,10,43.4:6,49.5:9,26.6:5,8,13.7:12,38.8:14,40,63.9:8,15,16,59,63,98.10:4,5,7,11,13,33,74.11:22,23,26,28,60,61.12:8,73.13:20,54,62,67.14:13,74,75,79.15:8,9,12,67,68,70,71,77.16:47,60,62,63.17:12,65.18:56,57,59.19:8,63,68.20:63.21:46,66.22:14,16,18,67.23:11,12,14,59,70,72.24:5,16,17,30,32,34,35,39,79,80.25:19,32,79.26:26,31,59,63.27:8,17,18,20,35,73,77.28:14,31,62,66.29:26,33,71.30:11,24,67.31:33,64,77.32:8,33,71.33:13,15,18,31,63,70,72.34:8,33,74,78,79,81,85.35:17,18,38,41,43,48,55,106,114.36:7,8,10,11,43,64,66,67,74,86,90,96,100.37:8,12,23,26,27,31,38,52,66,70,81,86.38:2,9,10,22,35,52,54,56,89,96,103.39:33,44,46,48,66,78,89,91,95.40:15,20,24,50,52,54,83,93.41:9,23,44,86,89.42:10,19,39,45.43:13,16,25,47,54,55.44:10,12,23,26,27,47,51,53,54,100.45:13,24,26,44,76,78.46:9,12,46,48,58,69,70,71.47:22,37,50,78,80,92,93.

Brewer's Blackbird:*Euphagus cyanocephalus*. 6:73.7:26,38.14:77,80.15:16,67,68.16:58,60.21:66.22:12,13,18,67.23:4,10,70,72.27:16,20,70,73,76,77.28:6,7,26,63,66.29:7,67,71.30:16,67.31:10,72,77.32:5,44,71.33:12,64,70.34:7.35:43,55,108,114.36:7,90.37:10,12,52,66,86.39:14.40:44,50,54,55,83.41:5,9,20,24,38.42:10.43:7,13,23,28.44:10,12,26,27,54.45:13,78,80.46:9,44,48.47:37,48.

Common Grackle:*Quiscalus quiscula*. 1:15.2:4,6,14,15,27.3:8,10,15,27,31,32,43.4:6,12,14,17,49.5:4,9,11,13,14,19,23,24,26,27,29,32,42,44,56,59,64,65.6:5,10,13,35,50,62,73,83,93.7:2,12,19,35,47,49,57,71,101,103.8:8,17,18,27,29,36,60,63,68,79.9:8,14,17,18,24,25,29,32,46-48,51,54,59-61,65,69,70,74,75,90,92.10:4,5,7,8,18,27,29,58,60,62,67,75,81.11:8,22-26,27,30,31,54,61,64,78,98,104,105,106,115,116,117.12:8,9,17,18,19,33,35,47,72,74.13:17,20,23,25,30,32,33,44,54,55,61,62,67,69,71,76.14:7,13,14,15,18,26,53,73,74,75,78.15:9,12,13,16,27,28,29,57,66,67,68,69,70,71,78.16:34,43,45,60,62,63,64.17:11,12,24,48,63,65,69.18:10,12,27,56,57,58.19:11,22,52,68,69.20:30,36,37,38,63,64,65.21:14,15,28,30,46,67,76.22:10,14,16,17,18,26,65,67.23:5,11,14,17-22,29,40,59,63,70,72.24:5,10,13,16,17,30,31-32,33,39,57,79,80,81.25:17,18,32,74,79.26:16,31,58,59,63.27:8,35,69,73,76,78.28:12,19,25,31,32,43,62,66.29:10,26,33,54,56,57,67,71.30:5,7,8,11,16,17,24,29,34,38,60,61,67.31:14,17,18,33,39,49,59,77.32:6,8,9,33,66,71.33:10,13,14,15,18,19,31,64,70.34:8,12,33,53,72,73,78,79,81,85.35:14,15,19,41,48,55,65,105,108,114.36:7,9,10,11,12,43,74,90,92,98.37:6,8,9,10,12,23,24,38,52,66,71,81,84.38:2,13,21,22,35,49,54,89,96.39:4,5,7,8,14,22,33.35,44,50,78,85.40:8,9,20,37,47,54,83.41:9,23,38,56,57.42:10,39,76,79.43:7,13,47.44:12,23,47,82.45:3,6,7,8,13,44,71.46:6,9,36,58,84.47:3,4,37,83,84,85,92.

Brown-headed Cowbird:*Molothrus ater*. 1:5.2:4,6,14,27.3:8,15,30,38,43.4:6,14,17,22,49.5:9,13,14,19,26,27,29,32,44,56,64.6:8,11,48,61,72.7:12,32,72,101.8:8,38,60,63.9:8,17,32,48,59,62,73,90,92.10:4,5,7.11:8,22,26,28,54,64,73,98,106,111.12:8,18,33.13:17,20,33,37,54,55,62,63,67,76.14:13,39,42,48,53,54,56,57,74,79.15:9,12,17,23,27,32,57,64,70,78.16:15,34,43,46,47,60,62,63.17:12,24,58,65.18:27,56,57.19:22,52,68.20:36,45,63,65.21:28,46,51,67,76.22:14,16,18,26,67.23:4,6,11,29,40,59,68,70,72.24:13,14,31,32,33,39,57,79,80.25:17,19,32,74,79.26:31,58,59,63.27:35,40,41,51,69,73,76.28:25,27,31,62,63,66.29:26,33,54,67,71.30:24,34,60,67.31:33,39,46,48,59,70,77.32:8,33,66,67,71.33:13,18,31,64,70,72.34:8,33,45,78,85.35:15,19,41,48,55,65,68,69,114.36:7,9,12,43,74,90,92,98.37:8,9,10,12,26,38,47,52,66,76,77,78,84.38:2,9,13,21,35,49,53,54,89.39:5,14,24,33,35,78,84,85.40:20,37,47,54,80,83.41:9,38,44,56,70.42:10,39,76,77,79.43:7,13,47.44:12,14,16,47,78,81,85.45:3,6,7,13,44,86.46:9,58.47:3,4,37,83,85,92.

* Western Tanager:*Piranga ludoviciana*. 40:65.41:86.

Scarlet Tanager:*Piranga olivacea*. 2:11.3:15.4:17,20.5:19,23,56.6:5.7:7,36,46,49,101.8:27.9:45,53.10:4,36.11:49,54,59,73,74.12:33,34.13:41,43.14:51,55.15:27,30,32,64.16:34.17:6,24,47,58,67.18:27.19:5,22,52.20:29,30,36,45.21:28,51,67.22:26,46,60,62.23:29,54.24:39,55,58,59.25:27,32,65,68.26:31,39,47,53-57.27:8,10,30,35,48,49.28:25,27,44,56,57.29:26,33.30:15,24.31:33,39,47,59,64.32:33,42.33:8,27,31.34:33,34,52,56.35:36,38,39,42,43,48,62,96,102.36:62,64,66,67,74,81,82,92,93,96,98,100.37:21,23,25,26,28,31,38,62,81,82,84,86.38:13,35,47,49,52,54,65,94,96,99.39:26,33,35,43,44,46,48,64,67,89,91,95.40:26,33,37,45,47,50,52,66,69,80,91.41:38,44,86.42:16,39,45,55,76,78,79,93.43:3,47,51,79.44:4,6,8,47.45:3,6,7,41,44,58,101.46:19,23,58,71.47:6,9,22,75,83,85,92.

Summer Tanager:*Piranga rubra*. 2:11,14.3:15,27.4:17,37.5:4,18,42,56.6:5,68,70.7:7,33,36,44,46,49,69.8:27,48.9:4,18,31,45,46,48,71.10:4,55.11:59,64,65,73.12:33,46.13:33,44,48.14:11,53,55.15:26,30,32,57.16:1,34.17:24.18:27.19:4,7,11,22,52.20:30,36,45.21:28,67.22:17,26,47,60,63.23:5,29.24:39.25:27,32,54,56,65,68.26:31,50.27:8,10,35,52.28:25,26,27,56,57.29:26,33.30:15,24.31:33,39,51,59,64.32:33,54.33:7,31.34:23,34,56.35:36,39,42,48,96,102,105.36:64,66,74,82,92,96,100.37:21,23,25,26,31,38,47,61,62,81,82,84,86.38:13,35,49,52,54,56,96,99.39:5,33,35,46,48,91,95.40:26,33,37,45,47,50,69,80,91.41:5,9,12,38,44,56,86.42:15,16,39,45,76,78,79.43:47,51,70,77.44:8,47,80,85.45:3,6,7,40,44.46:19,36,44,58.47:4,9,19,22,83,85,92.

Cardinal:*Cardinalis cardinalis*. 1:15.2:4,6,14,15,26,27,29,30.3:8,9,12,16,27,38,43,44,49.4:2,3,4,6,17,21,24,28,37,49,50.5:4,9,14,18,19,23,28,29,42,45,46,57,60,65.6:1,2,8,10,11,13,36,62,68,81,84,93.7:4,14,18,22,33,47,71,102.8:3,8,20,27,36,51,62,67,85.9:4,8,14,16-18,24,29,33,45-50,54,70,90-92.10:4,5,7,29,33,34,55,62,66,81.11:6,22,23,27,59,61,65,73,75,78,90,96,112.12:1-4,8,9,17,33,45,78.13:17,20,24,27,33,37,48,55,62,75,76.14:1,2,3,5,7,11,14,21,38,40,45,46,48,53,74.15:8,9,12,13,16,17,20,26,28,32,57,70,78.16:5,34,46,58,60,64.17:10,11,12,24,26,48,65,69.18:10,20,27,28,40,48,56,57,61.19:4,7,8, 11,22,52,68.20:19,29,30,36,63.21:14,28,67,76.22:15,16,26,28,46,67,70.23:5,8,29,52,59,70.24:13,14,39,43,59,79,83.25:17,32,52,54,79.26:16,31,50,63,64.27:8,35,51,73.28:12,25,26,27,43,66.29:8,29,33,54,58,71.30:7,8,10,13,16,18,24,25,29,34,41,58,67.31:13,14,16,18,33,36,46,47,59,70,77,78.32:9,10,14,33,43,67,71,72,73.33:6,10,14,18,19,31,54,70,71,72.34:23,33,73,81,85,90.35:48,101,114.36:11,43,56,57,74,86,90,91,92,97.37:5,38,42,46,66,71.38:2,9,13,35,68,89.39:4,5,8,33,35,50,78,82,85.40:2,3,4,5,16,37.41:9,38,56.42:10,39,76,77,79,80.43:3,13,20,47.44:12,14,30,47,58,76,78,79,85.45:3,6,7,8,13,30,31,44,61,73.46:9,14,36,58,84.47:3,4,37,43,83,84,85,92.

Rose-breasted Grosbeak:*Pheucticus ludovicianus.* 1:11.2:14.3:16.4:17.5:57.6:5.7:6,36,46,60,86.8:76.9:43,45.10:4,34.12:48,71,78.14:56.15:30,64.16:26,34.17:6,24,26,58.18:27.19:22,52.20:13,28,36.21:28,67.22:26,60,62.23:7,25,29,53.24:39,55,58,59,60.25:16,32,54,68.26:31,39,51.27:8,9,10,35,49,52,54.28:12,13,25,32,43,44,45,54,55,56,57.29:6,26,33,56,57.30:15,24,37,41,42.31:10,33,39,55,59,63,64.32:33,42.33:6,8,13,31,47,51,59.34:33,34,50,51,52,66,75.35:36,38,39,42,48,52,62,63,96,101,104,105.36:57,64,66,67,69,74,80,81,82,86,90,92,93,94,96,100.37:21,22,23,25,26,31,33,38,46,55,62,66,67,82,83,84,86.38:12,18,19,35,49,53,54,56,94,96,99,100,101.39:19,22,33,35,44,46,65,66,68,89,91,95.40:26,33,37,47,50,52,59,60,69,80,91.41:19,38,44,70,86.42:10,11,16,19,39,43,45,55,61,62,76,93.43:3,13,15,25,47,51,100.44:4,6,13,23,47,85,99,103.45:1,3,4,6,22,30,44,58,102,103,104.46:19,23,44,50,58,65,66,67,71,87,89,90.47:9,22,24,38,47,48,75,92,100.

* Black-headed Grosbeak:*Pheucticus melanocephalus.* 40:59.41:21.45:24,72.46:44,67,84.

Blue Grosbeak:*Guiraca caerulea.* 2:14.6:53.8:36.16:24,25,26,30,43.17:26,68.19:21,22,53.20:36.21:24,28,52,54,67.22:33,44,46,47.23:53,67.24:39,53,55,75.25:26,27,32,54,55.26:31,33,41-42,45,50,51.27:8,35,51,52,54,68.28:25,26,44.29:26,33,53.30:24,25,36,38.31:33,44.32:33,42,45,46.33:31,47,48,50,52,72,73.34:33,50,51,63,72,74.35:21,39,40,42,43,48,62,64,66,67,68,105.36:62,64,68,69,74,96.37:21,23,38,54,86.38:35,47,49,52,54,65,66,68,94,99.39:1,2,3,4,5,15,33,35,43,44,46,64,65,66,68,89,91,95.40:37,47,50,68,69,70,91,93.41:38,44,56,57,70,86.42:10,11,39,45,76,79,95.43:43,47,51,55,80,89,102.44:47,54,85,87,88,103.45:1,3,6,7,8,41,44,80,86,104.46:23,58,66,67,69,70,91.47:4,24,75,80,83,85,92,103.

Indigo Bunting:*Passerina cyanea.* 2:11,14.3:16,27.4:17,37,41,42.5:4,11,19,23,24,57,59,60.6:5,68,70,72,73,78.7:1,6,33,36,46,49,53,86,103.8:27,29,51.9:4,25,31,45-48,51,69,70.10:4,50,55.11:54,59,63,73.12:33,35,60,74.13:33,44,48,76.14:8,11,53,55.15:30,57.16:26,30,34.17:6,11,24,27,48.18:27.19:4,7,22,53.20:28,30,36.21:28,51,67.22:23,26,31,60,62.23:5,29,67.24:39,54.25:32,54,68.26:31,53-57.27:8,10,35,67.28:25,27,55,56.29:26,33,55,58.30:15,24,41,58.31:33,39,43,59,64,70.32:10,13,14,33,42.33:8,18,31,52,59,72.34:15,23,33,34,39,56,66.35:36,39,42,43,48,53,68,96,105.36:57,62,64,66,74,80,81,82,92,96,98,100.37:21,23,25,26,27,31,38,46,47,61,62,71,72,81,82,83,84,86.38:13,35,43,49,52,54,56,94,96,99,100,101.39:4,5,8,26,33,35,44,46,48,50,85,91,95.40:26,37,47,50,80,91.41:23,38,44,56,70.42:16,19,39,45,76,77,78,79.43:3,25,43,47,51,77.44:4,6,47,53,85,101,103.45:3,6,7,22,30,31,44,58.46:6,9,36,58,71.47:3,4,9,17,22,47,48,78,83,84,85,92.

* Painted Bunting:*Passerina ciris.* 4:17,36,41.5:26,59.6:53.9:63.10:31.12:33,34,36,60.13:43.14:37.15:33.16:45.17:11,24.18:27.19:22.20:36.21:28,51.22:26.23:29.24:39.25:32.26:31.30:24.31:33.41:56,57.43:75.45:44.46:58,66,87.47:4,5,75,92(The bird listed under the Natchez Trace column should be deleted),99.

Dickcissel:*Spiza americana.* 2:11,14,18,24.3:16,37.4:11,17.5:59.6:35.7:6,49.8:37,60.9:31.10:60.12:33,34,37.13:34,44.14:29,30,37.15:23,32,33.16:24,26,43.17:19,24.18:25,27,28.19:23.20:19,31,36,46,52,53.21:9,28,31,52,53.22:23,26,47,48.23:29,48,53,54.24:34,39,54,58,59.25:32,68.26:26,32,45,46.27:8,10,15,17,35.28:11,25,44,46,56.29:7,26,28,33,34.30:24,30.31:11,33,64,70,79.32:10,33,42.33:12,31,59,61.34:33,49.35:31,36,48,55,67,69,102.36:8,74,75,94,96.37:21,31,38,62,83.38:19,35,49,52,54,65,66,68,96.39:5,19,20,22,33,35,46,64,66,89.40:20,26,37,69,80,91.41:5,21,34,38,44,46,56,70,71.42:20,39,43,45,70,72,76,79,95.43:3,10,13,16,17,25,27,47,54,77,79,89,98.44:6,9,12,13,23,47,80,85,87,103.45:3,6,22,30,44,64,102.46:9,11,36,58,66,71,89,90.47:4,45,78,83,92,102.

Evening Grosbeak:*Hesperiphona vespertina.* 16:53-55,60,64,67.17:1-4,25,26,70.18:45.20:31.21:67.22:68,69,71.23:12,31.25:7-9,73,75,79.26:12-15,25,26,32,55,60,63.27:8,18,70.28:32.29:8,9,10,26,56.30:11,67.31:13,15,16,18,33,45,48,53.32:6,8,9,10,71.33:13,15,16,17,18,19,31,34,35,46,48,50,70.34:9,11,13,16,39,50,74,76,78,80,85,89,90,93.35:15,16,17,18,20,39,40,43,44,48.36:12,86,90,91,94,96,100.37:6,7,8,9,10,21,23,25,26,38,42,57,58.38:18,89.39:22,75,78,79,82.40:18,19,20,23,24,37,44,45,47,50,52,69,70.41:9,19,21,23,24,35,38,44,46,47,70.42:10,20,43,48,54,92,93.43:13,15,16,18,23,25,26,28,47,51,54,71.44:12,14,15,21,22,23,24,26,27,47,49,50,51,53,54,80,83,86,87,88,98,100.45:13,14,22,24,26,44,73,80,104.46:9,14,45,46,48,58,64,67,69,70,71.47:17,19,20,22,37,40,43,45,48,50,72,75,76,78,80,92,101,102,103.

Purple Finch:*Carpodacus purpureus.* 2:4,19.3:8,43,48.4:6,29,39.5:9.6:5,8.7:12,19,99,101.8:8,18,36.9:8,16.10:4,5,7,9,14,76.11:22,23,26-29,61.12:8,9,37.13:17,20,62,64.14:12,15,74,78,79.15:12,30,70,71.16:39,60.17:3,65,69.18:27,56.19:8,23,53,68.20:30,36,63.21:13,14,24,28,67,76.22:26,63,68.23:9,13,29,70.24:16,34,39,79.25:17,18,32,79.26:32,63.27:8,18,52,70,73.28:8,11,13,21,25,66.29:8,9,10,26,33,71.30:10,11,14,16,24,41,67.31:12,13,14,15,16,17,18,33,36,37,73,77,78.32:6,8,9,10,33,52,71.33:13,14,15,16,17,18,31,56,70.34:10,11,13,33,39,63,72,73,76,78,80,85,88,93.35:15,16,17,18,20,39,41,43,48,102,106,110,114.36:8,9,10,11,12,43,64,66,67,74,86,90,91,92,94,96,99,100.37:6,7,8,9,10,21,23,25,26,38,57,58,59,66,80,81,82,83,86.38:10,18,20,23,35,46,49,52,53,54,56,89,96,97,99,101.39:19,20,21,23,24,33,46,48,75,78,88,91,95.40:18,19,21,23,37,44,47,50,91,93.41:9,18,21,23,38,44,79,89.42:10,15,21,39,47,54,93,95.43:13,18,23,25,26,28,47,51,71,87,97,99,102.44:12,21,23,24,26,27,47,49,53,54,103,104.45:13,22,24,44,73,74,76,80,96,97.46:14,23,24,45,47,48,58,69,70,84.47:15,17,19,20,22,37,43,48,50,78,92.

* House Finch:*Carpodacus mexicanus.* 43:87.44:26,53.45:24,96.46:71.47:15,48,78.

* Common Redpoll:*Carduelis flammea.* 5:14.21:79.37:11.39:78,82.41:3.

Pine Siskin:*Carduelis pinus.* 7:101.8:69.9:6,8,42,45,93.12:7,8,10.13:20,23,55,62,63.14:74,75.15:16,30,32,33,70.16:39,60.17:63,65.18:36,56.19:53,68,70.20:33,36,63.21:13,24,28,67,76.22:14,16,17,18,26,68.23:11,13,67,68,70.24:14,15,17,18,34, 35,39,75,79,83.25:17,18,32,52,54,73,75,79.26:12,25,32,63.27:8,18,19,30,35,68,70.28:11,13,62,66.29:7,8,10,26,33,72.30:11,67.31:10,33,71,78.32:4,6,8,10,33,65,71.33:12,13,17,18,31,47,56,65,70.34:9,13,33,39,63,71,73,74,76,78,80,85,87,88,89,93.35:14,15,16,17,18,20,25-30,35,36,37,38,39,41,44,48,114.36:8,66,69,86,90,91,92,93,94,96,97,100.37:6,8,9,10,11,21,23,26,40,56,57,58,66,80,86.38:20,46,49,52,89,101.39:22,24,31,33,34,42,43,46,48,75,78,82,88,95,96.40:18,19,20,23,24,33,37,44,47,50,52,70,80,89,91.41:9,21,23,24,38,44,47,68,70,71,72,79.42:10,20,39,43,45,48,54,55,95.43:7,10,13,18,25,26,28,47,52,97,98,99,101,102,104.44:12,16,21,23,24,26,27,47,49,51,53,54,83,85,88,100,103,104.45:13,22,24,26,44,76,78,80,100,104.46:9,10,14,45,47,48,58,64,69,70,86,91.47:17,20,22,24,37,39,48,78,87,92,100,103.

American Goldfinch:*Carduelis tristis*. 1:12,15.2:4,12,14,26,29.3:8,16,43,44.4:6,17,26,29.5:9,19,23,57.6:8,72.7:1,12,35,53,65,86,99,101.8:8,27.9:4,8,16,17,21,26,31,45,48-50,52,69,92.10:4,5,7,14,55.11:22,23,34,49,59,61,63,68,112.12:8,9,33,45.13:17,20,40,48,55,62,75,76.14:8,11,58,74.15:26,28,32,64,70,74,78.16:34,43,60.17:3,6,24,28,58,63,65,69.18:27,56,57.19:7,8,23,53,65,68.20:28,30,36,63.21:28,67,77,80.22:14,17,26,28,65,68.23:5,11,29,59,70.24:13,39,59,60,79,83.25:16,33,79.26:16,32,38,63.27:8,17,35,73.28:12,13,20,25,42,66.29:26,33,54,62,72.30:15,18,24,58,67.31:39,59,70,77,78.32:10,33,41,61,71.33:18,31,70,72.34:11,33,74,85,88.35:37,39,48,66,114,115.36:11,37,43,57,74,86,90,92,93,97.37:21,38,46,66.38:2,9,13,35,89,92.39:5,33,35,78.40:6,21,33,37,47,91.41:9,23,38,79.42:10,39,76,78,79.43:13,47.44:12,47,101.45:3,6,7,13,44.46:9,14,37,58.47:4,37,43,83,85,87,92.

Red Crossbill:*Loxia curvirostra*. 7:57,58.8:69.9:1,4,6,8,42,45.11:117.12:10,29.13:20.16:39,60.18:56.19:53,63.21:77.22:68.23:70,75.24:79.25:79.26:19-20,39,63.27:14,18,68,70.28:44,62.29:26.33:17,27,31,56,70.34:13,39,74,75,80,85,89,91,93.35:16,18,20,25-30,37,41,44,48,106,114.36:69,86,90,92,96,100.37:10,25,26,57,58,66.38:89,101.39:23,48,75,78,83.40:23,24,70,93.41:9,13,23,46,47,71,72,79.42:55,72,95.43:7,13,27,28,55,73,80,95,99,100.44:12,16,23,24,26,27,28,51,53,85,87,88,103,104.45:13,22,24,26,44,69,70,76,78.46:9,48,91.47:37,48,50,78,92,102,103.

* White-winged Crossbill:*Loxia leucoptera*. 25:74,79.34:74,85,89,90,91,93.35:17,18,20,25-30,44.36:86,92.37:10,26,38,40,56,57,58.41:9,47,72.44:41.47:48.

* Green-tailed Towhee:*Pipilo chlorura*. 23:76.27:69.28:15.

Rufous-sided Towhee:*Pipilo erythrophthalmus*. There are four references to the "Spotted Towhee". Only one of these was based on a specimen, and it was identified as subspecies *P.e.articus*. I have used the obsolete species name,"*maculatus*", to refer to the other three sight records. Presumably most of the unannotated references are to *P.e.erythrophthalmus*, the form which breeds over most of the State. 1:15.2:4,6,14,15,26,30.3:8,16,27,43,44.4:2,6,9(*P.e.alleni*),17,24,29,37.5:4,9,18,23,29,39,57,59.6:8,73.7:1,4,10,12,33,36,72,86.8:8,27,51.9:4,8,12,16,24,25,28,45,47,48,54,64,92,96.10:5,8,46(*P.e.canaster*),56,67,81.11:22,23,26,27,31,48,54,59,61,63,73,77,90,112.12:8,9,17,18,33,35,36,37,45,51-57(*P.e.canaster, and P.e.erythrophthalmus*),58,59,61.13:17,20,24,27,34(*P.e.canaster*),36,40,41,43,44,48,62,75,76.14:2,3,5,8,11,46,74.15:8,9,12,17,26,27,28,65(*P.e.canaster*),69,70,78.16:4,5,14,34,40,41,43,60.17:6,10,24,46,47,58(*P.e.canaster*),65,67,69.18:27,36 and 37 (*P.e.canaster and P.e.erythrophthalmus*),56,57.19:5,7,8,23,54,68.20:28,30,36,53,63.21:12,28,43,67,77.22:15,17,26,31,44,47,68.23:5,9,29,59.24:13,39,42(*P.e."maculatus"*),43,55,59,75(*P.e.articus*),79,83.25:33,79.26:16,32,38,50,63.27:8,16(*P.e."maculatus"*),17,35,73.28:25,27,66.29:26,33,54,72.30:10,16,18,24,41,67.31:33,36,39,46,59,77,78.32:31,67,71.33:31,70.34:11,33,85,90.35:48,62,114.36:11,12,43,57,62,74,90,92,93,97.37:9,25,38,47,66,84.38:9,13,22,35,54,89.39:5,7,8,33,35,78,85.40:18,33,37.41:9,38,57.42:10,39,65,76,78,79.43:3,13,20,47,78.44:12,25,27,47,84,85,87.45:3,6,7,8,13,30,44.46:9,14,37,58,66,84.47:4,37,38(*P.e."maculatus"*),45,83,85,92.

* Lark Bunting:*Calamospiza melanocorys*. 37:41.

Savannah Sparrow:*Passerculus sandwichensis*. 1:15.2:4,19.3:8,16,27,43.4:6,17,29.5:9,11,24,27.6:8,33.7:12.8:8,36.9:8,12,15.10:4,5,7,32,46(*P.s.savanna and P.s.oblitus*),75.11:22,23,27,31(*P.s.oblitus*).12:8,9,69.13:17,20,62,70,76.14:5,29,56,66,74.15:14,30,33,70,71,76,78.16:34,47,58,60.17:24,64,69.18:27,37 and 38(*P.s.savanna, P.s.labradorius, P.s.nevadensis and P.s.oblitus*),56,62.19:23,28,54,68.20:11,37,63.21:28,52,67,77.22:18,19,26,68.23:10,14,29,58,59,70.24:13,17,39,79.25:19,27,33,64,68,79.26:16,26,32,63.27:8,17,19,35,50,73.28:25,56,66.29:10,26,33,54,72.30:24,34,67.31:16,33,64,70,77.32:10,33,43,71.33:8,10,31,70.34:15,28,33,66,80,85,90.35:20,42,44,48,96,105,114.36:7,10,12,21,43,64,66,67,74,81,82,90,92,96,100.37:21,25,26,31,38,40,66,81,83,86.38:2,20,35,47,52,54,56,89,99,103.39:21,33,35,41,46,48,66,78,95.40:26,37,45,47,50,52,53,55.41:9,13,23,38,44,86.42:10,39,45,63,91.43:13,15,28,47,55.44:6,12,23,31,47,83,85,87,103.45:13,26,29,30,44,58.46:9,24,50,58,69,89.47:22,37,75,78,92.

Grasshopper Sparrow:*Ammodramus savannarum*. 2:11,18.3:16.4:17,38,51.5:4,23,26,57,59.7:7,49,68.8:27,37,57,86.9:28,45,48,63.10:4,31.11:54,68.12:33,59.13:49,62,68.14:28-31,37,39.15:23,30,33.16:34.17:19,24.18:27.19:23,54,68,71.20:19,30,37,52.21:9,28,44,52,67.22:20,26,47,60.23:10,29.24:10,39.25:17,27,33.26:32,58,59,63.27:8,10,14,19,35.28:13,25,55,56.29:26,33.30:24,38.31:33,63,64.32:33.33:7,8,31.34:9,15,33.35:39,42,44,48,96,106.36:64,66,67,68,74,81,82,92,96.37:25,26,31,38,40,62.38:35,36,49,52,54,56.39:5,33,35,64,95.40:23,37,50,69,70,80.41:38,56,57,70,71.42:16,39,48,76,79,95.43:47,54,77,80,89.44:47,54,85,87,100,103.45:3,6,7,44.46:20,24,37,58,69,89,90,91.47:6,9,22,75,78,80,83,92,100,101,102,103.

* Henslow's Sparrow:*Ammodramus henslowii*. 7:69.13:23.14:55(Mississippi).19:28(*A.h.henslowii*).20:68(Mississippi and Tennessee).23:48.27:8.32:42.39:61,78,82.41:4,42.43:19.

Le Conte's Sparrow:*Ammospiza leconteii*. 2:19.3:10,11.5:64.7:18.8:15.10:46.11:21,22,26,103.12:8,14,15,69.13:20,62,68,70.14:13,65,66,74,77.15:16,17,70,71,75,76.16:58.17:27,63,65.18:56.19:68.20:63.22:68,71.23:58,59,70,72,73,76.24:10,13,14.25:33,79.26:20,58,63,64.27:74.28:7,63,66.29:8,26,67,72.31:33.32:4.34:28,33,71,85.36:90.37:63,66.38:68,89.39:75,78.41:9.42:7,10,11.43:10,13,71.44:9,12,30,78.45:13.46:6,9,71.47:37,38,48.

* Sharp-tailed Sparrow:*Ammospiza caudacuta*. 21:82(Virginia).24:84.27:13(*A.c.nelsoni*),53,74,75.29:27,51(*A.c.nelsoni*).31:64.35:95.37:62.38:12,93(Mississippi).42:21,70.44:7.46:89.

Vesper Sparrow:*Pooecetes gramineus*. 1:5.2:19.3:16,27,31.4:17.5:11,23,27,57.6:5,8.7:7,12,17,24,37,46,86.8:18.9:13,16,97.10:4,8,11,12,46.11:21,22,24,27,103.12:8,19.13:23,39,62,64.14:12,13,55,74,77.15:16,32,70,78.16:14,34,47,60.17:24,63,65.18:46.19:23,29,54,63,68.20:28,37,63.21:28,51,54,67,77.22:15,26,49,68.23:10,14,29,70,73.24:39,79,82.25:33,34,76,79.26:16,26,32.27:8,35,73.28:6,12,25.46,63.64,66.29:7,27,33,54,57,

69,72.30:15,24,34,62,67.31:33,64,70,71,77,78.32:9,10,33,71.33:10,31,50,70.34:33,73,80,85.35:39,42,44,48,54,105,114.36:8,10,21,43,64,66,67,68,69,74,90,97,100.37:8,21,23,26,27,31,38,40,55,56,66,81,83,86.38:2,20,35,49,53,55,56,68,89,99,103.39:21,33,43,46,78,89,91,95.40:23,37,47,50,52,70,91.41:5,9,21,38,44,47,86.42:10,21,39,45,47,63,84,95.43:13,23,27,47,54,55,80.44:12,22,23,26,47,54,87,103.45:10,13,24,29,30,44,46,58,76,80,104.46:6,9,10,23,58,70,71,91.47:37,48,80,92,103.

Lark Sparrow:*Chondestes grammacus*. 2:18,19.3:37.4:17,22.5:26.6:36,72.7:3,18,46.8:37.10:34.11:48.12:5,59.14:39,63.15:23,29.16:44.17:19,20.18:9.21:51.22:46,48.23:54.24:55,75.25:17,33.26:45,46,47,48,58,60,63.27:50,55.28:9,25,26,30,41.29:27,33.31:46,70.33:47.34:9,50,51,74,85,87.35:17,36,48,49,72.36:74.37:22,38,54.38:52,65.39:5,33,44.40:69.41:38,86.42:20,32,39,45.43:13,16,25,47,52,54,77,78,79,100.44:47,79,80,85.45:3,6,44,80,86,98,101.46:37,58,66,89.47:19,75,76.

Bachman's Sparrow:*Aimophila aestivalis*. 2:6,14,17,24.3:16.4:17.5:4,31,57.7:7,36,49,73.8:18,19,27,61,86.9:4.10:55.11:59,63.12:33,34,36.13:33,37.14:29,39,51.15:27.16:1,2,10,14.18:27,46.19:12,23,54.20:31,37.21:28,32,53,54,67.22:26,49.23:6,29,49,55.24:39,41.25:33,54,56.26:32,50.27:8,35.28:25.29:27,33,57.30:24.31:15,33.32:4,33.33:31,50.34:25,29,33.35:39,48.36:64,67,74,75.37:23,38,40.38:35,67.39:5,33,46.40:86,87.41:57,89.43:52,102.44:78,85.45:3,78,101,102,103.46:37,90.47:53,54,55,56,57,58,59,60,83,84,85,98,99.

Dark-eyed Junco:*Junco hyemalis*. Those numbers followed by an "A" refer to *J.h. oreganus*. I have not given any special notation to references to *J.h.carolinensis*, the form which breeds in Tennessee, since that would have involved too many annotations. 1:15.2:4,19,27,30.3:8,10,27,43.4:6,9(*J.h.aikeni*),10,17,29.5:9,12,57.6:5,8,90.7:4,10,12,58,86,89,91,92.8:3,8.9:1,4,8,10,16,17,42,45,50,51,54,69,71,90-92.10:4,5,7,11,47,81.11:22,23,28,61,105.12:4,8,9,17,18.13:17,20,24,40,41,44,55,61,62,63,71,75,76.14:3,5,8,37,46,55,73,74.15:8,12,28,30,64,69,70,78.16:5,34,58,60.17:6,10,24,58,63,65,69.18:25,27,56,57.19:8,9,23,54,68,70.20:13,28,30,37,60,63.21:14,24,27,44,67,77,80.22:15,16,17,26,68,70.23:9,12,13,29,59,68,70,74.24:39,79,83.25:18,33,79.26:16,32,39,63.27:8,17,35,71.28:19,25,32,33,56,66.29:9,27,33,54,61-65,72.30:9,13,15,16,24,41,42,63,67.31:11A,14,19A,33,37,70,73,77,78.32:33,71,72.33:10,27,31,70,71,72.34:10,11,15,16A,34,39,66,76,78,85,88,89.35:41,48,52A,96,102,110,114A,115.36:9,10A,11A,43,57,67,74,86,90,91,92,94,96,97,99.37:21,23,25,31,38,47,61,62,66,68,70,81,83,84.38:9,30,35,49,52,53,55,89,92,96,97,99,100,103.39:33,44,46,78,82,83,89,91,95.40:21,27,33,37,47,50,70,80,91.41:4A,5A,9,21A,38,51,52,53,70,79A,80,86.42:10,16,20,39,43,45,55,65,93.43:10,13,18,23,25,47,97,100A.44:12,14,21,23A,27,28A,31,47,51,53,80,100.45:13,44,54A,55A,99.46:9,14,19,48A,58,84.47:9,17,37,43,92.

Tree Sparrow:*Spizella arborea*. 2:19.4:6,29,49.5:12.6:5,8.7:4,12,21,47.8:19,40,76.9:8,13,16.10:5,7,9,12,13,46.11:7,14,22,23,26,28.12:8,9,14,15,17.13:20,62(the Great Smokies list was credited with 134 Tree Sparrows, but this number should have been for Field Sparrows),68.14:12,65,74,78.15:9,70,71.16:60.17:63,65.18:46,56.19:55,68.20:63.21:77,80.22:18,65,68.23:70,72,73.24:79,82.25:16,17,54,79.26:63.27:8,73.28:32,66.30:16,41.31:10,12,15,29,33,37,38,77.32:4,5,33,65,71.33:63,70.34:50,85.35:14,108,114.36:8,10,90,92.37:6,66.38:89.39:19,20,22,24,42,44,47,75,78.40:88,89,93.41:4,9,10,23,45.42:10,35,36,39,43,44,45,47.43:13,25,71.44:11,12,26,78.45:10,13,20,22.46:9,44,71.47:37,46.

Chipping Sparrow:*Spizella passerina*. 1:5,15.2:6,17,19,31.3:8,12,16,27,31.4:6,8,17,23.5:4,10,19,23,24,39,46,57,60.6:5,8,68,84.7:7,12,23,36,46,49,101,103.8:18,42,52.9:8,10,14,45-50,69,71,97.10:4,5,7,9,11,13,33,55,67.11:27,59,63,73,74,76,103.12:7,8,9,33.13:23,33,37,41,48,62,68,76.14:3,11,12,14,15,48,56,75.15:26,27.16:14,34,47,60.17:6,24,48.18:27,40,56.19:4,7,23,55.20:29,30,37,63,64.21:13,24,67.22:14,18,23,26,31,47.23:6,11,12,14,29.24:14,16,17,39,79,80.25:18,33,34,54,79.26:32,63.27:8,18,19,35.28:8,25,27,56,66.29:7,8,9,10,27,33,54,56,57,72.30:10,15,24,34,41.31:13,17,33,39,59,64,77.32:5,10,33,71.33:8,31,70.34:8,9,10,15,34,50,73,85.35:39,44,48,96,105,114.36:8,11,43,57,64,65,66,74,81,90,92,100.37:6,8,21,25,26,27,31,38,47,62,66,81,86.38:13,20,35,49,55,56,89,96,99,101.39:5,7,8,19,21,23,33,35,47,48,78,85,95.40:6,23,37,47,50,84,93.41:9,10,13,23,38,45,56.42:10,20,21,39,76,79.43:13,27,47.44:11,12,24,26,28,47,85.45:3,6,13,24,26,29,30,44,98.46:37,48,58.47:4,37,45,46,50,75,83,85,92.

* Clay-colored Sparrow:*Spizella pallida*. 4:23.40:84.

Field Sparrow:*Spizella pusilla*. 1:15.2:4,6,14,15,17,18,19,20,25.3:8,10,16,27,31,43.4:2,6,17,24,29,37,51.5:4,9,19,23,24,39,57,59.6:2,8,10,11,68,84.7:1,4,10,12,36,53,71,72,102.8:3,8,27,51.9:4,8,10,16,17,19,45-50,54,65,91,92.10:4,5,7,8,11,33,46(*S.p.arenacea*),47,55,58,78,81.11:22,23,26,30(*S.p.arenacea*),31,54,59,63,65,73,112,116.12:5,8,9,16,33,45.13:17,20,33,37,44,62(the Great Smokies list was credited with 134 Tree Sparrows, but this number should have been for Field Sparrows),71,75,76.14:8,11,15,48,74.15:16,26,57,70,74,77.16:1,10,34,60.17:6,12,24,48,64,69.18:27,46,56,57.19:7,8,9,23,55,68.20:28,30,37,63.21:29,32,68,71.22:16,27,31,68.23:5,13,26,29,59,70.24:39,60,79,83.25:16,18,33,54,79.26:16,32,63.27:8,35,51,73,77.28:25,27,55,56,66.29:27,33,54,58,72.30:16,18,24,34,41,58,67.31:16,33,36,37,39,59,64,70,77.32:9,10,33,47,67,71.33:7,8,10,18,31,70.34:11,12,15,34,66,85,90.35:48,64,96,114.36:7,11,21,43,57,74,90,92,97.37:31,38,40,46,47,59,62(*S.p.arenacea*),66.38:2,9,10,13,35,89.39:5,7,8,20,33,35,78.40:6,21,27,33,37,80,87.41:9,38,56,79.42:10,15,16,39,76,79.43:13,20,47,78.44:8,12,14,47,85,101.45:3,6,7,8,13,29,30,41,44,58.46:9,14,37,58,84.47:4,37,43,83,85,92.

* Harris' Sparrow:*Zonotrichia querula*. 5:15.12:41.23:71.24:75(Mississippi),79,81.25:74,79.26:20,58,63.27:37,73,77.28:6,7 and 26(Mississippi),66.29:7(Tennessee and Mississippi).31:11(Tennessee and Arkansas),77.32:4.33:64.34:8,13,73.35:36,48,49,107,114.36:7,74,84,90,94.37:59.39:44.40:21,47,50.42:43.43:13,20,23.44:12,24,47,51.45:76.46:6,9.47:46,48.

White-crowned Sparrow:*Zonotrichia leucophrys*. (Those numbers followed by a "G" refer also to the race *Z.l.gambelii*).2:4,15,18.3:8,27,43,48.4:6,21,29,48,49.5:9,11G,15G,24,27,61G.6:8,11G,35,90G,92.7:12,35.8:3G,8,36.9:8,10G,16,17,29G,51,54G,92.10:4,5,7,46G,74.11:7,22-24,28,29,68,103-105.12:8,9,15G,16,37,41.13:17,20,62,75.14:3,8G,55,74.15:9,30,70.16:10,34,60.17:24,35,64.18:27,46,56,57.19:7,23,55,68.20:30,31,37,63.21:15,29,52,68,77,78.

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Song Sparrow:*Melospiza melodia*. 1:15.2:4,15,18,19,26,27.3:8,10,16,27,43.4:6,10,17,29.5:9,14,19,23,57,60.6:1,5,8,12,73,90.7:12,59,86.8:8,36.9:8,16,17,45,48-50,67,91-93,98.10:4,5,7,11,46,58,59,81.11:7,22,23,31,103,105,112.12:8,9,26,33,65.13:17,20,44,48,62,71,75,76.14:2,8,55,56,66,74.15:30,70,78.16:10,34,60.17:10,24,64,69.18:27,48,56,57.19:8,23,29,55,56,64(*M.m.juddi, and M.m.euphonia*),68.20:28,30,37,63.21:29,68,77,80.22:16,27,31,68,70.23:13,29,40,59,67,70.24:39,54,79,83,84.25:26,33,68,79.26:16,32,45,63.27:8,35,73.28:6,25,56,61,66.29:27,33,54,72.30:16,24,34,41,58,67.31:13,16,33,36,37,39,59,64,70,77,78.32:9,10,33,71.33:10,18,31,70,72.34:10,11,15,34,35,66,73,76,85,90.35:49,54,96,101,114.36:8,11,21,43,56,57,60,74,75,81,90,91,92,93.37:31,38,39,41,47,61,62,66,82.38:2,9,35,49,89,96.39:33,63,65,78,83,84.40:21,27,37,47,54,68,69,80,84,92.41:9,38,45,53,54,68,70,87.42:6,10,39,46,70,76,79,93.43:13,18,19,20,42,44,47,54,77.44:12,14,47,85,87,100.45:13,30,41,44,61.46:9,14,19,50,58,89.47:6,37,43,83,84,92,99,100.

* Lapland Longspur:*Calcarius lapponicus*. 11:7,8,13,22,26,27,103.12:8,15.13:20,23.14:5,65.17:65,69.18:56.19:68.20:63.21:44 (*C.l.alascensis*),77.22:13,68,71.23:10,71.24:79.25:79.26:63.27:16,73.29:7,72.30:67.31:10,11,36,72,77.32:4,5,71.33:12.34:8.35:14,114.37:82.40:55.41:9.42:10,62.43:23,27.45:13,22.46:72.47:37,45,46.

* Smith's Longspur:*Calcarius pictus*. 23:10 (Arkansas).24:79,80.25:46,74,79.26:58,63.27:16,73.28:6,7.29:67,72.31:11(Arkansas).32:4(Mississippi and Arkansas).33:12 (Mississippi and Arkansas).34:8(Mississippi and Arkansas).35:14(Arkansas).

* Snow Bunting:*Plectrophenax nivalis*. 14:20 (Alabama).19:64.24:85.26:13,14.27:71,73.28:63,66.31:78.32:10,49.34:13.36:52.40:54 and 55(Arkansas).42:5,64.43:95.45:26.47:46,50.

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  Indigo-28
  Lark-29
  Painted-28
  Snow-31
Canvasback-4
Cardinal-27
Catbird, Gray-19
Chat, Yellow-breasted-25
Chickadee
  Appalachian: *Parus atricapillus practicus*-17
  Black-capped-17
  Carolina-17
Chuck-will's-widow-13
Chukar-8
Coot, American-8
Cormorant, Double-crested-1
Cowbird, Brown-headed-27
Crane, Sandhill-8
Creeper,
  Brown-18
  Eastern Brown: *Certhia familiaris americana*-18
  Southern Brown: *Certhia familiaris nigrescens*-18
Crossbill,
  Red-29
  White-winged-29
Crow,
  Common-17
  Eastern=Common
  Fish-17
  Southern: *Corvus brachyrhynchos paulus*-17
Cuckoo,
  Black-billed-12
  Yellow-billed-12
Curlew, Hudsonian=Whimbrel
Dickcissel-28
Dove,
  Ground-12
  Mexican Ground: *Columbina passerina pallescens*-12
  Mourning-12
  Ringed Turtle-12
  Rock-12
  Western Mourning: *Zenaida macroura marginella*-12
Dowitcher,
  Long-billed-10
  Short-billed-10
  Eastern=Short-billed
Duck,
  Black-3
  Fulvous Tree=Whistling-Duck, Fulvous
  Masked-5
  Ring-necked-4
  Ruddy-5
  Wood-4
Dunlin-10
Eagle,
  Bald-7
  Golden-7
Egret,
  American=Great
  Cattle-2
  Common=Great
  Great-2
  Snowy-2
Eider, King-5
Falcon, Peregrine-7
Finch,
  House-28
  Purple-28
Flicker,
  Boreal: *Colaptes auratus borealis*-14
  Common-14
  Northern: *Colaptes auratus luteus*-14
  Red-shafted: *Colaptes auratus cafer*-14
  Yellow-shafted=Common
Flycatcher,
  Acadian-15
  Alder-15
  Great Crested-15
  Least-15
  Olive-sided-16
  Scissor-tailed-15
  Traill's (includes both Willow and Alder)-15
  Vermilion-16
  Willow-15
  Yellow-bellied-15
Gadwall-3
Gallinule,
  Common-8
  Florida=Common
  Purple-8
Gnatcatcher, Blue-gray-20
Godwit,
  Hudsonian-11
  Marbled-11
Goldeneye,
  American=Common
  Barrow's-5
  Common-5
Goldfinch, American-29
Goose,
  Barnacle-3
  Blue=Snow
  Canada-2
  Egyptian-3
  Hawaiian-2
  Hutchin's: *Branta canadensis hutchinsii*-2
  Snow-3
  Toulouse-3
  White-fronted-3
Goshawk-6
Grackle,
  Common-27
  Bronzed=Common
  Purple=Common
Grebe,
  Eared-1
  Holboell's =Red-necked
  Horned-1
  Pied-billed-1
  Red-necked-1
  Western-1
Grosbeak,
  Black-headed-28
  Blue-28
  Evening-28
  Rose-breasted-28
Grouse, Ruffed-7
Gull,
  Bonaparte's-11
  Franklin's-11
  Glaucous-11

Gull, (continued)
  Herring-11
  Laughing-11
  Ring-billed-11
Gyrfalcon-7
Hawk,
  Broad-winged-6
  Cooper's-6
  Duck=Peregrine Falcon
  Ferruginous-7
  Harlan's: *Buteo jamaicensis harlani*-6
  Krider's: *Buteo jamaicensis kriderii*-6
  Marsh-7
  Pigeon=Merlin
  Red-shouldered-6
  Red-tailed-6
  Rough-legged-7
  Sharp-shinned-6
  Sparrow=Kestrel
  Western Red-tailed: *Buteo jamaicensis calurus*-6
Heron,
  Black-crowned Night-2
  Great Blue-1
  Green-1
  Little Blue-2
  Little Green=Green
  Louisiana-2
  Snowy=Snowy Egret
  Ward's=Great Blue
  Yellow-crowned Night-2
House Sparrow-26
Hummingbird, Ruby-throated-13
Ibis,
  Glossy-2
  White-2
  White-faced-2
  White-faced Glossy=White-faced
  Wood=Wood Stork
Jay,
  Blue-17
  Florida Blue: *Cyanocitta cristata cristata*-17
Junco,
  Carolina: *Junco hyemalis carolinensis*-30
  Dark-eyed-30
  Oregon: *Junco hyemalis oreganus*-30
  Slate-colored=Dark-eyed
  White-winged: *Junco hyemalis aikeni*-30
Kestrel, American-7
Killdeer-9
Kingbird,
  Arkansas=Western
  Eastern-15
  Western-15
Kingfisher, Belted-14
Kinglet,
  Golden-crowned-20
  Ruby-crowned-20
Kite,
  Mississippi-6
  Swallow-tailed-6
Kittiwake, Black-legged-11
Knot,
  American=Red
  Red-10
Lark,
  Horned-16
  Northern Horned: *Eremophila alpestris alpestris*-16
  Prarie Horned: *Eremophila alpestris praticola*-16
Limpkin-8
Longspur,
  Lapland-31
  Smith's-31
Loon,
  Common-1
  Red-throated-1
Magpie,Black-billed-17
Mallard-3
Martin, Purple-16
Meadowlark,
  Eastern-26
  Western-26
Merganser,
  American=Common
  Common-5
  Hooded-5
  Red-breasted-5
Merlin-7
Mockingbird-19
Nene=Hawaiian Goose
Nighthawk,
  Common-13
  Florida: *Chordeiles minor chapmani*-13
Night Heron (see Heron)
Nuthatch,
  Brown-headed-18
  Florida=White-breasted
  Red-breasted-18
  White-breasted-17
Oldsquaw-5
Oriole,
  Baltimore=Northern
  Northern-27
  Orchard-26
Osprey-7
Ovenbird-24
Owl,
  Barn-12
  Barred-13
  Burrowing-13
  Florida Barred: *Strix varia georgica*-13
  Florida Screech: *Otus asio floridanus*-12
  Great Horned-13
  Long-eared-13
  Saw-whet-13
  Screech-12
  Short-eared-13
  Snowy-13
Parrakeet,
  Carolina-12
  Louisiana=Carolina
  Monk-12
Parrot, Red-crowned-12
Parula, Northern-23
Pelican,
  Brown-1
  White-1
Petrel (see Storm-Petrel)
Pewee, Eastern Wood-16
Phalarope,
  Northern-11
  Red-11
  Wilson's-11
Pheasant, Ring-necked-8
Phoebe, Eastern-15
Pigeon,
  Band-tailed-12
  Domestic=Rock Dove
  Passenger-12
Pintail-3
Pipit,
  American=Water
  Sprague's-21
  Water-21
Plover,
  American Golden-9
  Black-bellied-9
  Piping-9
  Semipalmated-8
  Upland=Upland Sandpiper
  Wilson's-9
Prarie Chicken, Greater-8
Quail,
  Bobwhite (see Bobwhite)
  Coturnix-8
Rail,
  Black-8
  King-8
  Sora (see Sora)
  Virginia-8
  Yellow-8
Raven,
  Common-17
  Northern=Common
Redhead-4
Redpoll, Common-28
Redstart, American-26
Roadrunner-12

- Robin, American-19
- Ruff-11
- Sanderling-10
- Sandpiper,
  - Baird's-10
  - Bartramian=Upland
  - Buff-breasted-11
  - Least-10
  - Pectoral-10
  - Purple-10
  - Red-backed=Dunlin
  - Semipalmated-10
  - Solitary-10
  - Spotted-9
  - Stilt-11
  - Upland-9
  - Western-10
  - White-rumped-10
- Sapsucker, Yellow-bellied-14
- Scaup,
  - Greater-4
  - Lesser-4
- Scoter,
  - American=Black
  - Black-5
  - Common=Black
  - Surf-5
  - White-winged-5
- Shoveler, Northern-4
- Shrike,
  - Loggerhead-21
  - Migrant=Loggerhead
  - Northern-21
- Siskin, Pine-28
- Skimmer, Black-12
- Snipe,
  - Common-9
  - Wilson's=Common
- Sora-8
- Sparrow,
  - Bachman's-30
  - Chipping-30
  - Clay-colored-30
  - English (see House Sparrow)
  - Field-30
  - Fox-31
  - Gambel's: *Zonotrichia leucophrys gambelii*-30
  - Grasshopper-29
  - Harris'-30
  - Henslow's-29
  - House (see House Sparrow)
  - Lark-30
  - Le Conte's-29
  - Lincoln's-31
  - Nelson's: *Ammospiza caudacuta nelsoni*-29
  - Pine Woods=Bachman's
  - Savannah-29
  - Sharp-tailed-29
  - Song-31
  - Swamp-31
  - Tree-30
  - Vesper-29
  - White-crowned-30
  - White-throated-31
- Spoonbill, Roseate-2
- Starling-21
- Stork, Wood-2
- Storm-Petrel, Harcourt's-1
- Swallow,
  - Bank-16
  - Barn-16
  - Cliff-16
  - Rough-winged-16
  - Tree-16
- Swan,
  - Mute-2
  - Trumpeter-2
  - Whistling-2
- Swift-Chimney-13
- Tanager,
  - Scarlet-27
  - Summer-27
  - Western-27
- Teal,
  - Blue-winged-3
  - Cinnamon-4
  - Green-winged-3
- Tern,
  - Black-12
  - Brown= *Sterna albifrons browni*-12
  - Caspian-12
  - Common-11
  - Forster's-11
  - Least-12
  - Sooty-12
- Thrasher, Brown-19
- Thrush
  - Bicknell's:*Catharus minimus bicknelli*-20
  - Gray-checked-20
  - Hermit-20
  - Mono Hermit: *Catharus guttatus polionota*-20
  - Olive-backed=Swainson's
  - Swainson's-20
  - Willow: *Catharus fuscescens salicicola*-20
  - Wilson's=Veery
  - Wood-19
- Titmouse, Tufted-17
- Towhee,
  - Alabama: *Pipilo erythrophthalmus canaster*-29
  - Green-tailed-29
  - Rufous-sided-29
  - Red-eyed: *P.e.erythrophthalmus*-29
  - Spotted: *Pipilo erythrophthalmus* subspecies-29
  - White-eyed: *Pipilo erythrophthalmus alleni*-29
- Turkey-8
- Turkey, Water=Anhinga
- Turnstone, Ruddy-9
- Veery
- Vireo,
  - Bell's-21
  - Blue-headed=Solitary
  - Mountain=Solitary
  - Philadelphia-22
  - Red-eyed-21
  - Solitary-21
  - Warbling-22
  - White-eyed-21
  - Yellow-throated-21
- Vulture,
  - Black-5
  - Turkey-5
- Warbler,
  - Audubon's: *Dendroica coronata auduboni*-23
  - Bay-breasted-24
  - Black-and-white-22
  - Blackburnian-24
  - Blackpoll-24
  - Black-throated Blue-23
  - Black-throated Gray-23
  - Black-throated Green-23
  - Blue-winged-22
  - Brewster's (hybrid)-22
  - Cairn's: *Dendroica caerulescens cairnsi*-23
  - Canada-26
  - Cape May-23
  - Cerulean-24
  - Chestnut-sided-24
  - Connecticut-25
  - Golden-winged-22
  - Hooded-25
  - Kentucky-25
  - Kirtland's-24
  - Lawrence's (hybrid)-22
  - Magnolia-23
  - Mourning-25
  - Myrtle=Yellow-rumped
  - Nashville-23
  - Orange-crowned-23
  - Palm-24
  - Parula (see Parula, Northern)
  - Pine-24
  - Prairie-24
  - Prothonotary-22
  - Swainson's-22
  - Sycamore=Yellow-throated
  - Tennessee-22
  - Wayne's: *Dendroica virens waynei*-23

Warbler, (continued)
  Wilson's-25
  Worm-eating-22
  Yellow-23
  Yellow Palm=Palm
  Yellow-rumped-23
  Yellow-throated-24
Water Turkey=Anhinga
Waterthrush,
  Grinnell's: *Seiurus noveboracensis notabilis*-25
  Louisiana-25
  Northern-25
Waxwing, Cedar-21
Whimbrel-9
Whip-poor-will-13
Whistling-Duck, Fulvous-3
Widgeon=Wigeon
Wigeon,
  American-4
  European-4
Willet-10
Woodcock, American-9
Woodpecker,
  Downy-14
  Hairy-14
  Ivory-billed-15
  Pileated-14
  Red-bellied-14
  Red-cockaded-15
  Red-headed-14
Wren,
  Appalachian Bewick's: *Thryomanes bewickii altus*-1
  Bewick's-18
  Carolina-18
  Eastern Winter: *Troglodytes troglodytes pullus*-18
  House -18
  Long-billed Marsh-19
  Ohio House: *Troglodytes aedon baldwini*-18
  Prairie Marsh=Long-billed Marsh
  Rock-19
  Short-billed Marsh-19
  Southern Winter: *Troglodytes troglodytes pullus*-1
  Western House: *Troglodytes aedon parkmanii*-18
  Winter-18
Yellowlegs,
  Greater-9
  Lesser-9
Yellowthroat,
  Common-25
  Maryland: *Geothlypis trichas trichas*-25
  Northern:*Geothlypis trichas brachidactyla*-25

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